THE EDUCATION DIGEST

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Volume XXVIII SEPTEMBER 1962 Number 1

We Need Balance

Education in the New Technology

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PETER DRUCKER

In Think

FOR the average citizen, automation's greatest impact will be on our intellectual and cultural life and not on production technologies and employment. Automation is first and foremost an idea, an idea which organizes other ideas; and its impact on ideas accounts for the far-reaching implications.

What might the impact be? Immediately on asking the question, we see very great changes—changes that are already in full swing and are no longer speculation regarding the future. As in any change proceeding from a new insight of man, there are opportunities and challenges.

A society in which automation has become a governing concept of production and distribution is, of necessity, an "educated society." It is a society in which knowledge rather than man's animal energy is the central resource, putting to work the one specific quality in which man excels—for he is neither particularly strong nor endowed with outstanding manual dexterity.

Peter Drucker, a Management Consultant, teaches management at the Graduate School of Business, New York University, New York City. Reported from Think, *XXVIII (June 1962), 2–5.*

In highly advanced industrial countries, the largest employe group is already people who work with knowledge. In this country, the census groups called "Managerial, Technical, and Professional" became the largest employe group during the last decade—overtaking the semiskilled machine operator. In other industrialized countries, the same process is underway. These groups, the knowledge workers, are the only employe groups growing rapidly.

For the first time, we have a society in which everyone with the intellectual capacity to acquire knowledge can be given an advanced education. In the past, where physical brawn or manual skill alone were productive, the number of people to whom a society could afford to give an education was severely limited. Earlier society, including the society in which men now 50 grew up, did not consider knowledge an economic resource, let alone the central capital of the economy.

Today, increasingly, we worry about not having enough educated people. We can, increasingly, not afford to leave uneducated anyone having capacity to become a knowledge worker.

NEW OPPORTUNITIES

The immediate result has been a complete change in opportunities available to the individual. Historically, even in the freest society, occupations were basically hereditary. This or that son of a weaver might acquire another craft, might even become a professional man; but the majority was, by and large, confined to the craftsman class.

Only 30-odd years ago, when I was a student, one of my friends in England who had done mathematical work of unusual distinction wanted to become a mathematician. His family—a professional, highly educated family of reasonable affluence—converged on him to dissuade him from so asinine an idea. "How could one make a living as a mathematician?" they all asked. And they were right—as recently as 1930. The only ways in which an "educated man" could make a living were the "old professions": the law, the church, the army, medicine, and civil service. Today, one does not have to worry about job opportunities for a mathematician.

The same applies to other areas of knowledge. For most, there is constant and increasing demand in industry, government, and in the universities, giving young people an abundance of choice unprecedented in human history.

If freedom is defined as "ability to choose," then the advent of the educated society, based on ideas underlying automation, is one of the biggest steps towards freedom in the history of the race.

This changes the structure of society. Our books, newspapers, and political speeches still assume that in an industrial society there are two groups: a small group of "bosses" and a huge, undifferentiated group of "workers." Bu today the most important, th largest, and the most rapidly growing group are neither bosses no workers, but "knowledge employes": accountants and public-health doctors, sales managers and chemical engineers, industrial psychologists, and the operations researchers. None is a boss in the old sense; they are all employed. Yet they are not workers.

Our largest employe group is the group that transmits the knowledge on which our society is based—the teachers. Teachers, rather than workers on the automobile assembly line, are the representative employes of an educated society. They are not bosses, but they are not proletarians. They belong to the new, big group, the typical and dominant group of an educated society: middle-class, educated, employed, and yet independent—if only because in knowledge they possess a "property" of much greater value to the productive process and of greater impact on society than land, gold mines, or factory buildings.

CHALLENGES

But there are no opportunities that do not create their own challenges.

To avail ourselves of the opportunities of the educated society will require great changes in schools and education. What we will have to teach, above all, is ability to learn new things after one has left school. And yet we also need people who have greater and more systematic knowledge in the various disciplines.

A generation hence, we may, for example, have no engineering schools as such and no medical schools as such. We may find that technology—that is, the application of systematic knowledge to work—is a common and universal concept which has to be understood by the man who applies knowledge to inanimate matter just the same way as by the man who applies knowledge to the living body. We might, therefore, well have schools of technology. And yet, both the engineer and the doctor need increasingly specialized knowledge in their own fields.

Perhaps we face the greatest challenge to traditional education in respect to skills. Once, a skilled man was a man who had learned a traditional craft. Today, increasingly, craft skills as such become meaningless. In organizing the economic job as a "process" based on automation, that is, on the systematic flow of information and material, skills that never were together become one at a given place of work. And skills that formed a cohesive whole, as with the electrician, become parceled out among a great many pieces of work in a great many different places. Worse still, skills that were apparently eternal may overnight become obsolete—and new skills, not yet visible, may become required overnight.

We may need a change in the very idea of "skill." Instead of being what one has learned, skill will have to become the capacity to learn, that is, to apply ideas regarding work to new tasks. We may have to develop something like an SQ, a skill quotient that measures the ability of a man to transfer experience from one kind of material and one set of tools to new materials and new tools.

THE UNEDUCATED

An even bigger challenge may be that of the uneducated minority. Twenty years hence there may be concern with the "dropout," but the subject of concern may be the child who did not finish college. In an educated society, the opportunities tend to be restricted to people who can produce the formal evidence of higher education: the college degree, if not an advanced degree.

The uneducated will be both a minority and underprivileged. Here may be a major social problem. I should not be surprised to see, a generation hence, strong agitation against the denial of opportunities to those without the academic ability for higher education. Scholastic ability is as much an accident of birth as race or color of skin and, in a democratic society, as questionable a ground for a denial of opportunities.

Making higher education general and the prerequisite for access to opportunities would also tend to create what our society has always rejected: an intellectual elite.

The employment manager, the university, the civil-service commission—everyone who makes access to opportunity dependent on evidence of formal education—subordinates man and society to the analytical, the intellectual faculty, and makes intellectual ability the governor of human affairs.

But man is not an intellectual, analytical being only, not even in his higher, human faculties. He is perceptual and spiritual in addition to being conceptual. Even the achievements of truly great scientists are as much based on perceptual as on conceptual ability. They are works of art rather than essays in logic, visions of the unknown rather than technical process (which always presupposes that one already knows).

A society which puts intellectual ability into the driver's seat would be a poor and lopsided society. It might also be a sterile society. At least this was the fate of the one society that based itself on higher education and proven intellectual ability as the dominant qualifications for leadership: the China of the Mandarins. This destroyed the creative ability of the Chinese within a few centuries. China became completely unproductive technologically, completely frozen in its tools and techniques.

BALANCE NEEDED

To take full advantage of the tremendous advance in potential and capacity, in opportunities and knowledge, which the ideas underlying data automation make possible, we, therefore, need balance. We need balance in the education of the individual, balance which stresses and rewards perceptual if not also spiritual qualities and achievements. We need balance also in society, balance which stresses the aesthetic and spiritual contributions as much as it stresses the analytical ones. It is a problem for every citizen and for every member of our society.

The fundamental insights that underline automation are insights of great power, of great beauty of structure, rhythm, and architecture. They enable us to do great new things socially and culturally as well as technically and economically. They, therefore, call for great responsibility and true understanding in their application and use. ●

The Present Is Favorable for Reform

The Role of Government in Curriculum Innovation

EDGAR FULLER

In Educational Leadership

IN considering the roles of local, state, and federal governments in curriculum innovation in public schools, we should remember that the three levels of government, although having somewhat differentiated areas of action, work for essentially the same total education purposes.

Most of these purposes are achieved, if at all, at the local level where teacher and pupil meet. The higher levels assist in making the learning appropriately comprehensive. The best education for local purposes can scarcely be improved on for state purposes, and effective education at local and state levels includes responsibility for teaching content that fully serves the national interest in education.

Thus, our educational citizenship is a three-way responsibility. There should be no serious internal conflicts in purposes or in processes for its local, state, and national accomplishment.

The interest is served at all levels when the teaching process is most effective in pupil learning and personal development. Our concern should be with these results, rather than with the original *source* of information that is taught. Those promoting a "national curriculum to insure the country's safety" or "to satisfy the public interest" really seek changes with more emphasis on what *they* believe to be national interests.

Realistically, if local and state professional and legal authorities do not learn better how to evaluate and accept or reject proposed curriculum changes, such changes may be imposed eventually by national forces and their state and local allies. We should welcome and benefit from institutionalized curriclum research, whether from federal agencies, universities, or foundations. This requires improvement of state and local administrative provisions, if state and local educators are to justify having the last word about what is taught.

We agree with critics wanting to improve provincial and inadequate curriculums, but disagree that centralized control using power,

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prestige, and money is the way to achieve our common purposes. Instead, we should facilitate the process of curriculum reform at the local and state levels. We should prepare the way to achieve this where the schools and the children are. And teachers themselves should lead the movement.

Curriculum improvement calls for procedures to locate and test new content and methods, making certain that innovations accepted for use will bring more educational gain than loss. Efforts to achieve improvements should be intensified, but along lines that will bring constructive change even if results appear to be slower than desired. Our system of education requires more forbearance than national systems of education in other countries where content is prescribed and where the public schools are centrally administered.

Curriculum change poses fundamental problems of interaction between teachers and the public. It should take place in full view of the fact that the public schools belong to the people. We should provide acceptable ways for any individual or organization to enjoy a reasonable opportunity to assist in improving what schools do. We should use good ideas and practices from any source.

Proponents of change, such as foundations, foundation projects, universities, and the federal government, will succeed best if they continue to recognize the desirability of local selection among alternative proposals for curriculum changes. Local and state officials who have legal power to prescribe should not abandon persuasion as soon as they suffer their first feelings of impatience. Early involvement of teachers and administrators in study and experimentation to improve their own work will usually make official acceptance a formality.

There is no need to emulate Madison Avenue. Would-be innovators should be prepared to submit their proposed changes to practical testing in the teaching process. A lack of clear procedures for hearing new voices may explain the extent to which practical testing is not done.

In curriculum development, all citizens outside the school must be fully accepted in one sense and fully guarded against in another. Every school administrator knows the tremendous pressure that can be applied directly at the local level to change the curriculum to fit special viewpoints.

Legal power for formal curriculum change is restricted to sta[illegible] governments, including local sch[illegible] boards to the extent that state [illegible] have delegated powers. What federal constitutional requirements make strong impacts, as in the case of racial segregation, state or local systems need not accept federal programs of education. Sweeping curriculum reforms must be acceptable to the state's legal authorities. Lesser changes can be achieved by professionals alone.

I believe that the sifting process for curriculum innovations could be improved by a widespread planned combination of in-service education of teachers and programs of curriculum development. Such a pattern has never had a real trial. It could accelerate improvement within the framework of educational experience and policy, protecting against undue influence while improving opportunities for innovators to be heard.

FOR IMPROVEMENT

When I say that this challenge has never been taken seriously, I mean that the administrative arrangements that should be made at the local level have never been supported on a wide scale. Of course, teachers now lack necessary time to make broad curriculum improvements. Their work on curriculum committees is at best insufficient, a professional farce at worst. A comprehensive program would require a 10½- or 11-month school year for most teachers in almost all districts.

There would have to be administrative and clerical help and mon[illegible] for consultants from universities, national curriculum groups, and other school systems. Total educational costs might increase 5 percent or even 10 percent. For rural schools, special arrangements would have to be made.

At intervals of two to five years, each course of study in public education ought to be completely reexamined in detail by its teachers. They should work together for several weeks, without interruption except to receive advice from consultants and to hear descriptions of new ideas.

In such a program, the state department of education could perform all administrative chores broader than those feasible for the local district. The department should facilitate the movement throughout the state. All prospective innovators should be heard on a consultant basis, with assurance of prompt consideration of their recommendations. Within such traditional American patterns of control, curriculum modernization and in-service teacher training could improve education without present delays and misunderstandings.

The present educational climate is favorable for reform. Teachers and specialists in subject matter and methods work together better than ever before. The tempo of curriculum research and experimentation has increased. Legal authorities are increasingly involved, so problems of content, methods, and administration are more and more being considered together. And more teachers and educational authorities have attitudes of open-mindedness and willingness to try new methods and new content.

Local and state leadership is in a position to pave the way, with primary responsibility to preserve the integrity of the pupil-teacher relationship that current conditions endanger. ●

A Special Course on Communism?

The Crisis Threatening American Education

EUGENE MCCREARY

In Social Education

A CRISIS threatens American education. It is a crisis springing from anxieties and frustrations of the Cold War and it is particularly threatening to the social studies in secondary schools. The crisis can lead to a serious corruption of the curriculum, or, handled wisely with courage and insight, may be a milestone of progress and growth.

Curriculums in American public schools are developed typically through a cooperative process involving teachers, supervisors, administrators, and sometimes elements of the lay public. Evaluation is continuing and modification is frequent. The local school boards governing the public schools commonly take a sharp look at any aspect of curriculum considered undesirable by elements of the general public. At times, local boards and administrators are too willing to acquiesce when pressure groups complain.

These circumstances make the social studies vulnerable in time of crisis. The citizenship goal, the eclectic nature of the content, the emphasis on values, and the popular patent—all make the social studies peculiarly sensitive to popular pressures seeking to prescribe a certain kind of education for a special purpose.

The vulnerability of local boards and administrators to vocal pressure groups is now reflected, in many areas of the nation, in the choice of textbooks, in the inclusion or elimination of certain units of study, and even in the application of certain methods of instruction.

Americans are now an anxious and insecure people. The Cold War occupies more and more of the emotional life of many people—even as it dominates an important part of our political and economic life and defines our military posture. The average citizen is frustrated, puzzled, and confused by the course of events. He feels helpless and inadequate—powerless to do anything to improve the situation. It has been pointed out that

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frightened people in time of crisis take a special interest in educating the young, trying to insure that the new generation will be better prepared to settle matters. Americans are now justifiably concerned with how schools can help sustain our liberties and values.

ANXIETIES BEGET PRESSURES

Contemporary anxieties for freedom have led to pressure for stronger programs of citizenship education and changes in the social-studies program. There are calls for "pro-American" or "anti-Communist" courses. These pressures have led in some states to legislation requiring special courses and even special textbooks. In other states certain districts are revamping the social-studies curriculum to include special courses.

Special courses are no new thing in the social studies. It is easy to call for a special course each time events emphasize a particular problem. But many special courses of the past were later repudiated as a mistake.

A call for special courses often comes from those unaware of the present curriculum and how it provides an understanding of our institutions and ideals in contrast to Communist practices. No new courses should be offered without a serious evaluation of present offerings. A special course might unbalance an existing program of integrity and depth.

Certain extreme right-wing organizations, including the John Birch Society, have frankly proclaimed their intention to infiltrate schools, capture P.T.A.'s, and bring their point of view to the fore in the classroom. Surrender to such attacks would compromise our schools, usurp the professional role and responsibilities of teachers, and turn the social studies into subservient propaganda. Any pressure for special courses ought to be evaluated carefully. The establishment of any courses ought to rest in the hands of competent professionals.

Suggestions for special anti-Communist or pro-American courses sometimes reflect an unfortunate ignorance about these concepts. Terms are used carelessly and concepts are hopelessly confused. Political systems are confused with economic systems. Theory is equated with practice, both in our country and in the Communist world. There is a simplification of reality into two polar absolutes—democracy and communism—overlooking the manifold variety of human institutions, including other dangerous alternatives which might threaten our own people, such as military dictatorship or fascist totalitarianism. There is little understanding of the economic and social realities in this nation and elsewhere and the emphasis is not on facts and understandings but on fears and suspicions.

A curriculum built on such ignorance and fear would be a preposterous embarrassment to well informed social-studies teachers and an insult to intelligent students. It would be a repudiation of American ideals and an inadvertent encouragement to the Communist, for it would imply that our freedoms are not dynamic, flexible, and responsive to the needs and desires of our citizens and the welfare of other people in the world. It would distort and compromise the ideals of our free, pluralistic society, open to ideas, and governed by popular consent. It would imply that we worship an ideology divorced from realities of our national life. It would submerge the true revolutionary content of American history, the establishment of a society of personal freedom under limited government pledged to the ideal and evolving toward the realization of justice, equality, opportunity, and human welfare.

WHAT STUDENTS NEED

Critical thinking and problem solving are essential in a democracy—they are our way of finding and testing truth. The study of controversial subjects is essential to citizenship training in a free society. Students need to experience the clash of alternative solutions and to evaluate the arguments of partisans. They need to learn to judge and choose. Any attempt to indoctrinate one single viewpoint will alienate the best minds of the young people, who will learn to be skeptical of, or even cynical toward, biased or propagandistic teaching. A generous examination of all viewpoints, evidence, arguments, and theories can develop the informed loyalty of free men who have practiced free thought, moral choice, and responsible decision and prefer them to authoritarian indoctrination characteristic of totalitarian systems.

Long ago we made a choice for our nation. Americanism means free and honest examination of facts and objective consideration of alternatives. It means free and respectful discussions of differences and the ability to compromise. Our science and our society reach tentative conclusions which may be modified by experience, changed circumstances, and new evidence.

The concern that young people develop deeper understandings of democratic values and of the various political and social systems which compete and sometimes threaten our own deserves the serious attention of teachers and administrators. Curriculums ought to be examined carefully to assure accuracy, thoroughness, and appropriateness. Evaluations ought to be a cooperative process, including members of the professional staff and lay citizens. Evaluation teams should also include specialists—scholars from recognized institutions of higher learning and other competent authorities.

Curriculums ought to reflect the best available evidence and insights—not the fears and political programs of partisans but the facts and interpretations of scholars. There is a desperate need for the best understanding scholarship can provide. Better programs by public schools will reduce the clamor for "anti-Communist" schools fashioned by partisans, conducted in an atmosphere of pageantry, molded by the temper of religious revivalism, and haunted by fear.

SPECIAL UNITS?

In any curricular changes, thought should be given to the relative merits of special courses or units on communism versus the treatment of aspects of this subject in context in the secondary social-studies program. World history courses can emphasize modern world history and highlight modern culture areas. In such an arrangement, the entire history of world communism becomes a major theme. World geography ought to deal with the whole world, and any such treatment ought to provide opportunity to learn how people live and how society is organized in Communist countries, in the newer, underdeveloped countries, and in Western societies.

Civics courses provide opportunity for comparative government studies—American institutions are best understood and appreciated through comparison and contrast with other systems. American history ought to include the most recent period and the genesis and nature of the Cold War. Problems courses, particularly at the senior level, offer opportunities to study any aspect of communism and competing systems, including the psychological and sociological aspects.

One area of communism, domestic subversion, is usually given little attention. The ordinary school and its staff are ill-equipped to deal with this problem, even as they are unable to deal fully with other aspects of crime and punishment. But any penetrating history of the United States will consider why radical alternatives were popular in the early 1930's and how the achievements of the New Deal, disillusionment during the Stalinist period, and the Communist alliance with Hitler combined to discredit communism in the United States.

Special courses assure that certain aspects of this important subject are not overlooked—but they may distort the subject matter by isolating it from related materials and understandings.

Whether or not communism is considered a special course or an important theme of several courses, Americanism ought to be taught in the entire public-school experience in all its complexity. Experiences in democratic classrooms as a part of a democratic school are central to teaching Americanism. Attempts to indoctrinate will be selfdefeating, for imposed dogmas contradict a free man's loyalty to dynamic ideals he has experienced, understood, and learned to love.

We must be certain that in reappraising our social-studies programs, we deepen understanding rather than alarm, we develop political sophistication and democratic loyalties rather than mere moral righteousness. ●

We Should Consider
Sex Differentials

Is Learning Sexless?

WALTER B. WAETJEN

In NEA Journal

SEX is one individual difference affecting learning that is frequently ignored. Not consciously ignored; rather, it seems that we have not ever seriously considered it. We assume, apparently, that learning is the same for all, regardless of sex differences.

If this be so, then it is difficult to explain why there are more boys, by a huge margin, than girls who underachieve in school, are poor readers, are in the hands of youth authorities, and are in speech clinics for functional disorders.

As a male, I prefer to think that this does not indicate that boys are inferior beings. More probable, the statistics suggest that schooling of boys, as well as their broader socialization, is less efficient or at least different from that of girls. In any case, we should look for evidence that explains the sex differential.

That people tend to respond to something in terms of the way they perceive it is as true of children as it is of adults. The different ways of viewing the world determine the way in which youth responds to and participates in their world.

In an experiment designed to find out how boys and girls differ in perceiving their worlds, children viewed various pictures of objects such as a village, farm, city, factory, etc., and then were asked to describe the scenes. Three major generalizations are indicated from results of the investigation: Girls are more sensitive to human relationships than boys; girls have more positive reactions to situations that children experience directly (church and school); and, even at the elementary-school level, the sex role of boys and girls influences perception of their world.

Another more technical investigation of the way in which the sexes view their world gives us reason to believe that the way boys and girls learn cannot be assumed to be similar.

In this study, individuals were required to adjust a luminous rod, surrounded by a tilted luminous frame, to the true upright position. A major finding was that females,

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Walter B. Waetjen is a Professor of Education, University of Maryland, College Park. Reported from NEA Journal, *LI (May 1962), 12–14.*

more than males, tended to perceive the upright by using information from the visual field (the tilted frame). In contrast, males were able to make use of the position of their bodies in perceiving the rod independently of its background.

This female dependence on the visual field was apparent at all ages from the adult level to the child level, indicating that from an early age females are less analytical than males.

A skeptic might ask, "So what?" An answer might be that since girls are more field dependent and more sensitive to people than boys, they might fare better in the usual classroom where the teacher and the curriculum content are major parts of the field. Conversely, since boys make greater use of internal cues and are less sensitive to people (teacher and peers), it appears that they would fare less well than girls. Furthermore, boys, being more analytical, may create difficulties for themselves by making too many decisions on their own rather than responding to suggestions and directions from the teacher.

This speculation is supported by a study which determined that girls receive significantly greater approval from teachers than boys do. And it is true that girls perceive themselves as being more accepted and valued by parents than do boys.

Recent studies indicating that boys have a higher metabolic rate than girls might be of help in understanding why teachers, without exception, report that boys are "hard to manage" in the classroom. This higher metabolic rate may account for the familiar sex differences in overt behavior which some teachers find disrupting to classroom operation and which may distract boys from learning.

There are other facts causing speculation about the difference in learning of boys and girls. One is that girls verbalize earlier and more than boys. Since thinking is dependent on language use, it seems to follow that better thinking and learning ensues for the person with greater language skills. Perhaps the slower maturation of the boys is responsible for their lesser language skill. But the causes are far less important than the effect they have on thinking and learning.

SOCIAL INFLUENCES, TOO

One thing stands out clearly: The learning by the sexes is both the result of biological fact and social influence. Girls are not better learners nor boys poorer learners simply because they are biologically different. Each is taught from early in life to behave in sex-appropriate ways, taught so effectively that, by the time they begin school, boys and girls view their world and react to it in ways unique to their sex.

There is evidence that even our school readers play a part in this process. They communicate to children that girls are unaggressive, affiliative, and helpless. They portray the male as aggressive and capable of taking the initiative in solving a problem.

The school does not and cannot exist as a sexless institution in a sex-structured society. We can, and should, consider sex differentials in learning. We must try to find out if, in our teaching and general school operation, we have created an official mold for learning. Is it possible that such a mold—albeit intangible and unacknowledged—is shaping our schools and our students? And is this mold one into which girls fit more easily than do boys?

No matter what we would like to believe, the truth is that we do not know the answers. However, if girls do learn in somewhat different ways than boys and if the school's mold for learning is easier for girls to fit into, then boys are at a disadvantage.

The temptation is to remedy the situation by establishing all-girl and all-boy classes. There may be some merit to this at the junior-high-school level in academic areas. However, if this is done, it should be on a limited, experimental basis while facts are collected in a systematic way to determine if separation by sexes does facilitate learning.

Perhaps another approach to improving the learning of both boys and girls can be devised from what we do know about the sex differences in a learning situation. Since boys are more field-independent and act on internal cues in their perception, it might be worthwhile to place boys in classrooms with teachers who feel comfortable about allowing pupils to make many of their own decisions, to voice differing opinions, and to pursue at length portions of the material to be learned.

This is far from suggesting that the teacher abdicate his role. Rather, it means that he would capitalize on the relative field independence of boys to facilitate their learning. ●

The Sex Problem

- While visiting with a neighbor child who attended kindergarten, I told her I used to be a teacher. Surprised, she asked, "How did you happen to quit to be a woman?"—Gertrude Hagen in *The Christian Science Monitor*.

- At Sunday School, little Joe was impressed by the story of Eve's creation from one of Adam's ribs. Later in the day, Joe felt a pain in his side. "Oh," he gasped, "I think I'm going to have a wife."—From *Texas Outlook*.

- "In our family," the little girl told her teacher, "everyone marries relatives. My father married my mother, my uncle married my aunt, and the other day I found out that my grandfather married my grandmother."—From *Midland Schools*.

How Important Is Parental Interest?

Psychological Factors and the Dropout

GORDON P. LIDDLE

In The High School Journal

In our complex, industrialized society, there will continue to be an increasing need for highly skilled manpower and a decrease in the need for unskilled labor. This has led to increased educational, industrial, and governmental concern about the dropout problem. Educators recognize that the needs of some children are not being met in the schools. As a consequence, hundreds of dropout studies have been reported in the literature. We can gain some understanding of the psychological factors involved in school dropouts by examining some of the common findings.

The reasons a child stays in or drops out of school are usually multiple and complex. Nearly all studies agree that early school leavers more often come from lower class groups such as migrants and underprivileged minority groups. Dropouts, as a group, have below average intellectual ability as measured by intelligence tests, are retarded in reading and other skill areas, are overage for their grade, are frequently absent, are failing one or more courses, and are not active in extracurricular activities. They come from families in which parents have had less education, were unsuccessful in school themselves, and less strongly support the school or encourage their children's academic interests. The dropouts themselves often feel that their schooling was impractical in that it did not prepare them for a vocation. Many feel dissatisfied in their social relationships with fellow students; others feel that they are treated poorly by their teachers.

Gordon P. Liddle is a member of the Committee on Human Development, University of Chicago, Illinois. Reported from The High School Journal, *XLV (April 1962), 276–80.*

A survey of teachers' feelings about dropouts showed that teachers often find it hard to "get through" to potential dropouts; meaningful communication breaks down.

For the past nine years, I have been a member of a team of social scientists studying a cross-sectional group of 1,200 children as they grew from elementary-school pupils into early adulthood in a midwestern city of 45,000. All the children in two grades in the public schools were studied, whether they stayed in school or dropped out.

One question we wanted to explore was, "To what extent do parental attitudes significantly affect school attendance?" Children from homes and neighborhoods in which middle-class values prevail are taught early that life is a series of hurdles to be jumped. Mothers record dates their children walk and talk, they help with homework, they quiz teachers about test performance, and in many other ways indicate that education is a serious business in which they must succeed.

Many lower-class adults, particularly mothers, at least partially share these values, but most parents of dropouts do not. Rather, they teach their children that life is a long series of trying situations to be avoided if possible. It is important to get by, but achievement is neither valued in itself, nor is it seen as the road to a better life. There is an emphasis on staying out of trouble, but this should not be confused with a strong internalized conscience.

PARENTAL INTEREST

Most parents of dropouts seldom took an active interest in what their children were doing in school. Even when the effects of social status were controlled, as one investigation found, few parents of dropouts strongly opposed their children dropping out of school. Many of these parents were basically indifferent to their child's schooling, and long ago had stopped being curious themselves. More than a few undercut the school by saying such things as, "You don't need to know all that junk about triangles or the Romans to get along in this world," or, "I told Jim that if that English teacher treated him the way she treated me, I wanted him to walk out."

PEER INFLUENCE

The peer group also affects the adolescent's attitude toward education. We observed that lower-class children attending predominantly middle-class schools with a strong emphasis on achievement were much less likely to leave school than children of similar status who had to be different from their buddies if they were to graduate.

Although large numbers of children with no greater intellectual potential than the average dropout do finish high school, as a group the intellectual ability of the dropouts is distinctly below average. Since we also know that social class is highly correlated with early school leaving, we controlled these two variables in choosing a control group for our dropouts. This made it possible to ask, "Why do some low status, low IQ children find school meaningful while others do not?"

There is a pervasive sense of failure common among dropouts. It was found that dropouts saw both self and school as less valuable and also less industrious than did the controls. Many felt that school became too difficult. One girl put it, "I never knew the answer, and when I didn't the teacher got mad and the kids would laugh." A great many dropouts verbalized their inability to compete with their more informed classmates, and for a considerable number, this was combined with a feeling that they lacked the teacher's support. Some attempted to protect their egos by saying that they could have passed if they tried, but that they never listened for anything but the buzzer which ended the period.

SOCIAL ADJUSTMENT

The dropouts as a group have below average social and personal adjustment; and this sometimes contributes to their decision to leave school, or to the administration's decision to ask them to leave. A sense of rejection, isolation, and defeat almost always leads to a lack of acceptance of, and respect for, others. Sometimes these feelings lead to a rather pervasive pattern of aggressive striking out at everyone and everything in the adult-controlled world.

Lack of money in itself is no longer an important direct factor in school leaving in our communty, but it sometimes plays an important secondary role. Lower-class youngsters are sensitive to the fact that they have less money for clothes, tickets, books, fees, cars, and other expenses related to high-school life. They want the economic symbols of adult status and know they can't have them as long as they stay in school.

When a lower-class, low-IQ child stays in school, it is almost always because he is finding some social and academic satisfactions for at least a part of his school day; otherwise he almost always leaves. We observed that students achieving in athletics or music usually graduate no matter what their ability level. To some extent, those who developed a specialized talent seemed able to extend their pattern of achieving in one area into other areas as well.

The importance of parental interest and involvement cannot be too strongly emphasized as a factor in school leaving. It was found that first-born children and children from small families less often left school even when social status was controlled. Parents spend more time with their first-born and are usually more concerned about their achievement.

The immediate cause of school leaving may be a failed examination, a disagreement with a teacher, or the chance to get a job at the shoe factory, but the basic causes are usually multiple and of long standing. Usually the dropout feels at odds with the socially elite among his classmates and isolated from, or rejected by, his teachers. From his point of view, his parents are not very interested in his schooling. He feels that he will continue to be an academic failure, and therefore something of a social failure as well. Competition is motivating only to those who feel that they have a good chance of success. The dropout feels that only by leaving school and proving himself as a worker or mother can he or she regain selfrespect. ●

The Results Are Inconclusive

The Maze of the Research on Ability Grouping

A. HARRY PASSOW

In The Educational Forum

IN the concern for improving the educational provisions for the gifted as well as for upgrading the quality of education for all students, questions about the relative advantages and disadvantages of ability grouping have once again been raised. A great deal of sentiment, pro and con, about the merits of ability grouping is recorded in the literature together with descriptive accounts of various practices and programs.

In the search for research findings, the quantity is great (dating back more than 40 years), the quality is irregular, and the results generally inconclusive.

A steady flow of studies and discussions about grouping began in the early 1920's, reached a peak in the mid-1930's, and then dwindled sharply. In 1950, Henry J. Otto reported that "no research studies on ability grouping have been reported during the past 15 years." While there were some studies in that period, Otto's statement accurately reflects the decline.

The past decade has been marked by a sharp upswing in grouping proposals and in studies of the effects and effectiveness of grouping. In 1960, in an article in the *Encyclopedia of Educational Research,* John Goodlad commented, "Perhaps the most controversial issue of classroom organization in recent years is whether or not students of like ability should be grouped together for instructional purposes."

As the number of grouping studies have accumulated over the past three decades, the inconclusiveness of the research findings becomes more apparent as each reviewer couches his summary in tentative or equivocal fashion.

Some of the reasons for the difficulties in generalizing from the research are readily apparent on examination of the studies. Specifically, the problems stem from the following:

The studies vary considerably in scope of aim and purpose. Some experiments dealt only with a single grade level; others, the entire elementary or junior-high-school level. In some instances, the studies were concerned with achieve-

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ment in a single subject—reading, algebra, Latin—while other experiments attempted to assess scholastic growth in all content areas at a particular grade level. Some studies simply assessed pupil and teacher opinion. Most experiments were concerned solely with attainments in scholastic subjects, giving little or no attention to assessing the effects of grouping on other aspects of growth—attitudes, interests, or personal development.

The studies differ in the number of students, the number of groups, and the size of the class involved. The total number of subjects and groups was too often far too small to provide any basis for valid generalizations. In some experiments, as few as two or three groups with 25–30 students each were used. Comparisons of achievement in groups quite disparate in size are highly questionable — differences may well reflect the effects of class size rather than of grouping practices. The size of the sample is not the only consideration, of course. Some studies with the largest numbers of pupils employed such poor techniques of selection and grouping that the value of the findings is diminished.

The studies differ in duration—ranging from a semester or less to a year or more. The question of length of an experiment is important in assessing how lasting or cumulative the results are. This problem of inadequate duration is underlined by Ruth Ekstrom who notes, "The probable error of the reported test scores is frequently greater than the normal differences in scores for the period of experiment."

The studies differ in the adequacy of the selection bases and the means of matching experimental and control groups. With few exceptions, general intelligence as measured by group tests is the usual criterion for selection of groups. Particularly in the earlier studies, pupils were classified into gross categories of dull, average, and bright. Seldom were classes or groups organized on the basis of more than a single variable. As a consequence, groups were "homogeneous" with respect to only one factor and, therefore, subject to the limitations involved in its measurement. The matching of experimental and control groups in many studies has been inadequate since most factors affecting individual learning were ignored. Even the description of the composition of groups has been incomplete in some studies. Matching of individuals on the basis of single test scores is a doubtful procedure used in some experiments.

While many different bases for selection have been suggested—teachers' judgments, physical and social age, educational quotient, interest, and even anatomical age—few studies have employed multiple criterions in selection for grouping.

The studies differ in the "treatment"—i.e.. the differentiation of curriculums and methods of teach-

ing. In some studies, teachers were asked to keep course content and teaching methods essentially the same for all groups; in others, enriched materials and increased tempo of instruction were provided the bright groups, while other modifications were made for the slower pupils. Some studies suggest that unless accompanied by curriculum and methodological changes, grouping is ineffective and its prime purpose—to facilitate differentiated instruction—is lost. The difficulties in this area lie in the fact that variations in content and method are not controlled and yet they are treated as if they were controlled factors when assessing the effects of grouping.

The studies differ in the deployment of teachers in various groups. Sometimes a single teacher worked with both heterogeneous and homogeneous groups; sometimes a teacher worked with only one kind of group and each class had a separate teacher. Usually the teacher factor was ignored in the experimental design.

The studies differ in the instruments and techniques used in evaluating changes in students. Standardized tests of achievement, either in single subjects or batteries, and teacher grades are the most widely used means of evaluation in grouping studies. Some of the earlier studies noted change in the rates of failure or promotion, but the majority relied on some kind of objective tests to determine whether one kind of grouping was more favorable than another. Although the arguments pro and con frequently refer to such changes as work-study habits, social adjustment, attitudes toward learning, selfconcepts, and other personal-social behaviors, few efforts have been made to evaluate the effects of grouping on these areas of development. Psychometric advances in the past 25 years have extended the areas of assessment of these procedures, but experimentation in grouping has not as yet taken full advantage of these procedures.

The studies have generally failed to assess the effects of grouping on teachers and administrators. Attitude and opinion surveys have been made by several researchers, but no real experimental attack has been made on the question of ease or effectiveness of teaching in various grouping plans.

There are a great many questions still unanswered about the effects of ability grouping. Some more recent grouping plans—ungraded primary units, dual progress plan, University of Chicago's "teachable groups"—are now being studied. These represent approaches to grouping which depart from the more traditional procedures based on a single ability criterion. Little, if any, evidence is available on the effectiveness of any of the newer approaches. Research designs which deal with some of these unanswered questions in more comprehensive fashion than has been done in the past may help fill some of the gaps. ◆

What Will Happen in 1980

Fantasy, Facts, and the Future of College Admissions

FRED E. CROSSLAND

In The Journal of Educational Sociology

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THERE are many myths about college admissions today that should be destroyed if the American people are to identify the real problems of higher education which demand solution in the next two decades. A few of the popular myths would include:

Colleges are overcrowded.—A few may be, but most are not. There are about 2,000 institutions in this country and perhaps 25 or 50 have considerably more qualified applicants than they can handle. The "admissions crisis" is a statistical phenomenon created by two facts: the typical candidate files three or four applications to different institutions; and more than 50 percent of all applications are sent to less than 10 percent of the institutions. One high-school senior may become a four-college applicant, but eventually he is only a one-college freshman. The present combined capacity of all American colleges is more than adequate to serve every qualified candidate and should be adequate for another three or four years.

Admissions standards are too high.—Present standards are too high only for those denied admission, but a rejectee at one institution very likely would be accepted at a hundred other colleges. For thousands of college freshmen, admissions standards are not high enough; they will never survive their first year in college.

Admission tests are unreliable.—So is weather forecasting, but few suggest doing away with it. The problem is the test interpreter, not the test. Admissions tests, whether of the aptitude or achievement variety, merely are predictive and diagnostic tools when employed properly by professionals. By knowing national norms and norms for his institution, the admissions officer can predict success or failure with remarkable accuracy for an individual candidate in a particular program in his college. But, as with baseball batting averages, we are dealing with probability, not certitude.

Too many potential geniuses are being lost to society.—If one is lost, that's too many. In any event, any high-school senior of *average* aptitude and achievement is admissible to hundreds of colleges. In some areas, lack of free public education may make college attendance virtually impossible for those with extremely limited means, but the problem here is not one of college admission. It has to do with ensuring full educational, cultural, social, and economic opportunities to everyone for those important 18 years before college. If this is achieved, no "genius" is likely to fail to receive a college education.

There are many "late bloomers" who become successful.—Admittedly, each individual matures and develops at his own rate, and undoubtedly some "ugly ducklings" turn into "beautiful swans." But the number of young adults who make such intellectual transformation is small, despite the understandable hopes and prejudices of most parents. If a college candidate, at age 18 with 12 years of educational performance behind him, has not fared well in competition with his peers, has not developed appropriate interests and attitudes, and has not practiced good study habits, there is little evidence that he suddenly will come alive as a college freshman. Every college admissions officer annually takes a chance on a number of potential late bloomers, but only a very small proportion survive the academic rigors.

The important thing is to get your education at the "right" college.—Essentially, this statement is correct but the usual definitions of "right" are preposterous. What really counts is the caliber of the faculty; the intellectual curiosity, diversity, ability, and potential of the student body; physical facilities such as libraries, laboratories, and classrooms; and the educational philosophy and program of the institution. Unfortunately, unbiased information of this kind is not readily available, and perhaps the public should be forgiven if taken in by false and misleading educational advertising.

PROBLEMS

Once the myths are brought into accurate perspective, the problems we face can be described accurately. They include:

The approaching universality of higher education.—This is both a source of satisfaction and a cause of concern. In little more than a century, American higher education has changed from institutions designed to serve the wellborn preparing for careers in two or three professions to comprehensive training grounds for all the children of all the people regardless of career objectives. The effects go far beyond an increase in numbers of college students. The resulting social mobility has required new definitions of the functions of higher education. It has led to establishing a vast and useful educational subprofession of testing, counseling, and advisement. In many cases, it has required departure from the classical curriculum to the teaching of a variety of technical and vocational subjects once considered improper for collegiate study.

The diversity of American higher education.—Today we have: private and public institutions; four-year and two-year colleges; large and small institutions; specialized schools and programs spanning the range of activities and occupations in fields of industry, business, agriculture, and government; and we have a bewildering array of off-campus extension education, correspondence school work, and adult education. This rich diversity, both of programs and opportunity, probably is unmatched in the world. But it poses monumental problems in establishing educational definitions and standards and in evaluating and comparing courses and curriculums in different institutions.

The population explosion.—The continuing high birth rate means that beginning in 1965 there will be far more young Americans coming of college age than ever before in history. A conservative estimate is that the number of people aged 18 to 21 in 1980 will be more than double that of 1962.

The revolution in college aspiration.—More significant than growth in numbers is the fact that since the end of World War II an ever larger percentage of these young people have been seeking education beyond secondary school. In some states, estimates are that more than 50 percent of all 18-year-olds are in college or are planning to attend. Sixty years ago, barely 4 or 5 percent continued their education. As this trend continues it will mean an even sharper increase in enrolment than census figures suggest.

The need for faculty and facilities.—A description of staff and plant to serve the future armies of students is staggering to the imagination. We know how many graduate students presently are in the "pipeline," and we know there will not be enough well-trained college teachers when the student wave hits. We know the normal time required between acquiring funds and actual occupancy of a new classroom building, dormitory, or library. To meet known needs of the future, we must expand much more rapidly than in the past.

The explosion of learning.—The body of human knowledge is growing at a fantastic rate. If education is, among other things, the process of transmitting to the young the accumulated experience, knowledge, and wisdom of the past, how much longer can we add layer on layer in the college curriculum? Should some subjects be dropped or condensed? Should we find new and more effective teaching techniques? Should we extend periods of time given to formal education? Perhaps we should further encourage specialization and virtually give up efforts to train generalists.

THE FUTURE

After this brief description of some of the problems we face, what can we expect concerning higher education in the near future?

Enrolment estimates.—Presently there are about 3,750,000 Americans enrolled in undergraduate, graduate, and professional schools. We can expect the number to be about 10,000,000 by 1980. In addition, there will be millions of other Americans participating in educational television programs, adult-education activities, extension courses, and a variety of informal training programs.

Public and private education.—Today slightly more than 60 percent of American students are enrolled in public institutions. By 1980 it is likely that 80 to 85 percent will be enrolled in tax-supported colleges. Virtually all expansion facilities will take place in the public sector. Enrolment in private institutions may increase about 15 percent (from 1,500,000 to perhaps 1,750,000). But enrolment in public institutions may increase 267 percent (from 2,250,000 to 8,250,000). During the next 18 years a large number of institutions now under private control may be expected to surrender their charters and become public tax-supported colleges and universities.

The role of government.—Amounts of money appropriated by national and state governments will be increased many fold. In addition to direct support of public institutions, government will extend aid to private institutions through expanded scholarship and student-loan programs, through special financing arrangements for capital expansion, and through stepped-up programs of sponsored research.

The community college.—By 1980 we should be approaching universal education through two years beyond the present high school. The two-year community college is the most rapidly growing phenomenon in American education today. We may see an arrangement of a lower school (K through grade 6), a middle school (grades 7 through 10), and an upper school (grades 11 through 14). Higher education then may begin with the present upper division of undergraduate colleges.

Education technology.—It is likely that educational plants will be utilized year round with the traditional two-semester academic year being revised drastically by 1980. Teaching machines and electronic aids will be commonplace, and new teaching techniques will provide greater opportunity for independent study by talented students. Numerous other changes will result from pressure of numbers of students and increased educational costs.

The college freshman of 1980.—The child born this year will be 18 years old in 1980. His will be a world which most of us today would find strange. The real problem for all Americans, and particularly for educators, is this: What must we do today to ensure that the college freshman of 1980 will not be graduated into Orwell's *1984?* ●

Five Important Realities

Human Relations in School Administration

EUGENE C. KIM

In The Bulletin of the National Association of Secondary-School Principals

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THROUGHOUT the world for at least a century, there has been a shift in the fundamental principles and in the practices of human relations from that of authoritarian systems to a more democratic system. This is exemplified in several socio-cultural institutions today: in the home, in the religious sphere, in government, and in business and industry.

With the evolution and spread of new concepts, business and industry have entered a new phase in administration, especially in personnel management. In the area of educational administration, the traditional concepts are being modified along the following lines:

> The development of sound educational administration is being manifested on philosophical, sociological, historical, and psychological bases of human development.
>
> Mechanically oriented school administration, which traditionally stresses the importance of categorized aspects such as building maintenance and school finance, is shifting toward a socio-psychologically oriented administration which places particular importance on the human-relations aspects of school personnel.
>
> The supreme administrative authority usually vested in the superintendent or principal is being decentralized, and emphasis is placed on the cooperative efforts of all members of the institution.

The principle of human relations bears equal importance in all types of human organizations. However, because the final products of educational institutions are human beings, not material goods, human relations here have a unique importance. Also, the quality of personnel producing the human product constitutes the core which invariably influences the educational achievement.

With dispersion of the human relations movement in educational administration, it has become apparent that school personnel have become increasingly aware of the essentiality of wholesome personnel relations as a stimulus to maximum educational achievement.

Persons have commonly thought of human relations as denoting goodwill and mutual respect among group members. These are basic factors, but it is further necessary for the administrator to develop skills in relating himself and others to the social situation in which they are placed. Also, there are certain functional realities that are applicable generally to administration today. Five important realities are:

FUNCTIONAL REALITIES

Recognition of interpersonnel needs.—It has been found that, in addition to the basic biological needs of human beings, there are also certain interpersonnel needs which must be met to nourish the well-being of the group. When the biological needs of an individual are not satisfied, the well-being of the organism is impaired. Likewise, when the interpersonnel needs of the members of a group are not fulfilled, the spirit of the group suffers. The latter seems especially serious in its effect on staff relations among school personnel.

Scientific investigation on interpersonnel relations.—Certain notions have unduly influenced man in thinking that he intuitively knows a great deal about people and that the psychology of personality or sociology also encompasses the study of interpersonnel relations. This intuitive and common-sense capacity to understand human relations has been found to be insufficient. The psychology of personality is concerned mainly with the traits of human personality; sociology is chiefly interested in understanding the over-all social phenomenons produced by the cultural complexities of human surroundings.

The evolution of modern industrial and social psychology has thrown new light on human relations within institutionalized organizations. However, a lag is observable in the study of interpersonnel relations. Despite numerous volumes on human relations, attention to its scientific investigation has been meager in contrast to the natural sciences. It is my belief that, in the field of interpersonnel relations, we have a great deal of empirical knowledge on hand, and that we can arrive at systematic understanding and crucial experiments more rapidly by attempting to clarify the theory. A scientific study of interpersonnel relations among school personnel is in particular need of clarification.

Provision for social and psychic space.—With the growing emphasis on human relations in modern administration, it has been found that individuals weigh the value of their work in terms of the group environment as well as in monetary terms. When individuals have learned the importance of group environment in affecting duty performance, they demand further opportunities for selfexpression, release from arbitrary authority, and freedom for selfdevelopment.

These human demands are reflected in the administration's desire to review its policies of personnel management with the realization that individuals, as selfdirected beings, are or should be able to manage themselves. This also teaches administrators that individuals are motivated and stimulated by meaningful job activities and that they want "social and psychic space in which to breathe and expand." This should be especially applicable to educational workers.

Executive leadership as a human-relations skill.—Research reveals two general kinds of leadership: one, personality leadership; the other, executive or administrative leadership. With one, the administrator possesses, mostly through nature, traits which enable him to establish effective ties with his co-workers. With the other, the administrator acquires the skills, through education and experience, which enable him to secure effective coordination and performance through human relations. An administrator exercising both types may do no actual harm. Study does reveal, however, that the high morale achieved through personality leadership can be exercised only with relatively small groups. Administrative leadership is capable of functioning over a much wider area, and there is no upward limits to the size of the organization. Now, most research on leadership focuses on leader behavior rather than on leader traits.

On the basis of the leader-behavior and leader-traits concepts, a generalization may be made: Leader behavior correlates especially with *executive* leadership and leader traits correlate more with *personality* leadership. Accepting this, one can conclude that future research in personnel administration in education should be focused on the study of executive leadership, which is important in fostering better interpersonnel relations in educational organization.

Change in evaluating educational products.—Effective administration requires devices with which to measure its products. In the present trend there is a change in the norms employed for evaluation. Industry, the explorer in human relations, has pointed out inadequacies in methods of measurement currently being employed. First, the traditional theory of measurement largely ignores motivational and other human variables. Second, until recently the social sciences were not developed enough to provide methods for measuring the quality of the human organization.

There are certain facts that administrators should accept when evaluating their efforts. Mechanically oriented measuring devices alone should not be accepted as sufficient and complete. And administrators should strive to comprehend the newer concept of evaluation which stresses socio-psychological aspects of performance; namely, interpersonnel relationships. The special qualities characterizing the modified concept of educational evaluation include such factors as motivational devices, exchange of communication, authoritative dimensions, morale aspect, cooperative planning, and group dynamics. In essence, these are the "contents of human relations" for which the administrator must assume responsibility when attending to the problems of interpersonnel relations in education. ●

Even Better Work Is Soon to Come

The New Mathematics Programs

EDWIN MOISE

In The School Review

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ONE handicap of school mathematics in our time has been the gulf between professional mathematicians and the schools. Another has been a general lack of sympathy for mathematics in the general culture. Not long ago there were some circles in which mathematics was regarded as an activity which might be all right for certain eccentric and spiritless adults, but which surely ought not to be inflicted on helpless children.

In the last few years, for reasons that are not entirely clear, both tendencies have been reversed; and one result has been a remarkable development of new programs. Most have been developed by collaborations between professional mathematicians and school teachers; and they have had—from schools, teachers, and students—a more favorable reception than most dared to hope for. I shall try to explain the spirit and the meaning of some of those developments, as I understand them.

In 1955 the College Entrance Examination Board set up a Commission on Mathematics to study the problem of the curriculum in grades 9 through 12 and to recommend reforms. Being aware that any agency writing examinations influences the curriculum whether it wants to or not, the board was rightly afraid that it was freezing the mathematics curriculum at a time when changes were needed. It, therefore, sought advice of the mathematical world. The commission was broadly representative, both of the universities and the schools.

The commission's report appeared in 1958. The basic thesis was that high-school courses needed recasting to bring them into harmony with the methods and spirit of modern mathematics.

We should, at the outset, understand what "methods and spirit of modern mathematics" does not mean. It does not mean that recently discovered theorems should be taught early and often. In fact, the program recommended by the commission did not include in grades 9 through 11 a single topic that was not well understood in the year 1800. The point is that mathematics, uniquely among the sciences, does not fall into fundamental errors. Much of the best mathematics has been with us for a long time, and we should not be surprised if rather old material turns out to be adequate and suitable for the first three years of high school.

On the other hand, mathematics is constantly being reformulated. Its language and its conceptual apparatus change faster and faster as time goes on; some ideas lapse into relative insignificance, while others move into central roles.

The commission's program is radical in some ways and conservative in others. Many people, including myself, dissent from a number of the commission's judgments, both philosophical and curricular. But the commission was not writing, or trying to write, a bible. They asked that their program be regarded as a "point of departure." Thus, their report is the sort of document which, if successful, is superseded by events. One measure of the commission's success is the fact that their report has been superseded in this way.

The program was designed to be feasible in this decade; and it was supposed to require only the sort of additional teacher training which is available in practice. Fortunately, such additional training is now available on a fairly large scale, in summer institutes and academic-year institutes sponsored by the National Science Foundation. They are important; without them reforms could proceed only at a small fraction of their present pace.

Even this advantage, alone, would not have been enough. In practice, most courses are taught out of books and the commission's ideas were not carried out, even approximately, in available texts. It is doubtful whether the feasibility of a new program can be judged until books have been written for it. The natural next step was production of experimental textbooks.

SMSG ACTIVITIES

The School Mathematics Study Group (SMSG) started work at Yale University in the summer of 1958, under a grant from the National Science Foundation. At the start, the writing team included approximately 40 people, about half being from the schools and half from the universities. This arrangement reflected a fundamental policy of SMSG's work: collaboration between mathematicians and experienced classroom teachers.

The exact relation between the SMSG and the commission is not easy to determine. It was agreed at the first writing session that the commission's program would form a provisional outline. In 1959, after many prolonged tribulations that will most likely be forever unknown except to a few, four textbooks were finished, one for each of the four high-school grades.

Each text was tried out at about 70 experimental centers throughout the country. Consultants were available to help the teachers but, excepting a few who worked in the writing project, the teachers had no special training to prepare them for the job. On the basis of these reports, all the books were revised at a writing session in 1960 and were put on the market for use in 1960–61.

The schools' response was favorable beyond all expectations. The first printing of 50,000 copies was doubled after a few weeks and a few weeks later it was plain that this was not enough. In 1961–62 the circulation approximately tripled. This was especially significant in the light of the fact that none of them had been adopted in any state. Every SMSG book ordered for school use had to be paid for in some awkward fashion.

ELEMENTARY BOOKS

In addition to its high-school work, the SMSG has produced books for use in the elementary schools. The problems involved are peculiar. Just as a student who can ever learn calculus can learn it in the twelfth grade, so a student who can ever learn algebra can learn it in the eighth or seventh grade. But in most schools it is not practical simply to move high-school courses downward. Few teachers are trained to handle them. Moreover, a large proportion of elementary-school pupils are headed for courses in "general mathematics" rather than ninth-grade algebra; and such students need frequent fresh starts. For these reasons, much of the new elementary-school writing is in short units, largely independent of one another.

Some of the most novel and most interesting of the new text materials are designed for use in the early grades. I am not qualified to discuss them fully. It is obvious, however, even from a distance, that young children can learn much more and much better mathematics than is ordinarily taught to them. The possibilities now revealed are a great challenge both to course design and to teacher education.

In addition to publishing textbooks for students, the SMSG has published material for teacher use. The manuals accompanying the textbooks go much further than is customary in discussing the mathematical backgrounds of courses. Some of them include short essays on various related topics. The SMSG has also promoted preparation of a series of mathematical monographs intended for independent reading by superior high-school students.

All this work has been remarkable, not merely for its quality and its variety, but for the speed with which it has been carried out.

The SMSG is now beginning a different sort of work. Its "crash program" is finished. It is expected that its high-school books will be withdrawn from circulation in another two or three years, when similar books become available through commercial publishers. From now on, SMSG's main job will be long-range experimentation with courses and programs that are not necessarily suitable for wide use in the near future.

During the first year the SMSG

programs were tried, standard achievement tests were given before and after. Roughly speaking, the results indicated that the students did approximately as well, on tests based on traditional courses, as they would have done if they had taken the traditional courses. Valuation by traditional tests is the handicap that new programs are expected to accept and overcome; and if the shift in objectives and emphasis is great—as it was in these cases—the handicap is also large.

HAZARDS OF JUDGMENT

All the new programs in school mathematics are in process of growth. In addition to the SMSG program, there is also the University of Illinois Commission on School Mathematics (UICSM), which also has published textbooks, as well as the Maryland group, the Ball State group, and others. The task of surveying all the new literature and of making judgments involves certain hazards, among them are the following:

The new books seldom explain the reasons behind the methods that they use. (Such explanations belong in the teachers' manuals. To put them in the text usually represents a lapse from intellectual discipline.) Often the reasons are far from obvious. Therefore, many passages in the new books, considered in isolation, may seem at first to be silly. Sometimes, no doubt, they are; to err is human. Most of the time they are not.

The new books try very hard to convey mathematical concepts. It should not be inferred that they are addressed solely to the superior student. Nearly all are intended for the same students who now study the conventional corresponding courses. There is some fragmentary evidence suggesting that advantages of the new courses are greater for mediocre students than for brilliant ones. If this turns out to be true, we should not be surprised. The mediocre students need help most in grasping concepts; brilliant students are likely to figure things out.

A casual inspection of the new books may convey an impression that they neglect the traditional material, including the material useful in science, to replace it with "modern" mathematics of interest only to research mathematicians. This is not true. Some of the changes are curricular, but most are merely changes in style of treatment. All the new programs lead to analytic geometry and calculus in the usual four years.

Possibilities for misunderstanding are due to the fact that the ideas underlying the new programs are not intellectually trivial. They are the results of long, hard work, at both mathematics and teaching. I cannot believe that anybody has found the final answer to any of our problems; I cannot even believe that such final answers exist. But the progress made in the past few years forms the basis of a long overdue revolution in mathematical education, and I am convinced that even better work is soon to come. ●

This Electronic Age

JOSEPH F. HANNAN

In NJEA Review

THE most far-reaching changes in education today are those having to do with electronic gadgets designed to make learning more pleasant and longer lasting. In the pedagogical double talk so loved by schools of education, these devices are familiarly termed A-V. A-V stands for audio-visual, the words being selfexplanatory.

It was with the breathless air of a pilgrim approaching a sacred shrine that I found myself entering my first class in Audio-Visual Aids and there, lined up, glaring superciliously I felt, were the machines I hoped to command. . . .

At first it seemed a little complicated, but all around me I saw people gaining skill and confidence. Look at that little old lady who is taking the course for renewal of a teaching certificate that expired in '08. Watch her tap the mike and murmur professionally, "Testing one-two-three. A-B-C." Watch that little freshman make a sprocket adjustment with a bent bobby pin. Obviously if these unmechanical types can master this business, I with long years of changing tires in the gas station will have no trouble.

My day of vindication finally came when the principal asked me to run a film program for the whole school. Knowing that the secret of success is preparation, I gave up my entire lunch period to prepare the equipment. It is well I did, because it took almost an hour just to open the screen. As a matter of fact, I was about to give up when a little girl from the third grade happened into the auditorium looking for her sneakers. Darn kid seemed to know quite a lot about movie screens.

The principal said a few words about the film, then nodded for me to begin. I opened the little doors, flicked on the switches, closed the doors, and sat down to enjoy the film. At this point the screen went blank along with my mind. I wrenched open the little

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doors just in time to see the film complete its trip backward onto the front reel. Something the A-V instructor said came clearly to mind. "Always be careful to check your reversal switch."

I checked it, and by golly he was right. It was on reverse. Now, I'm the A-V co-ordinator of our entire school. I have a helper, a cute, little fourth-grader with pigtails named Trudie. I take care of all major operations, such as lugging the machines up to the second floor. I allow Trudie to take over the minor things such as adjusting the sound and threading the machines. Darn good little helper, too.

The Electronic Age is tough on teachers in another way. You hear a lot about teaching by television. The talk is becoming so widespread that it is making the teacher feel insecure. The "Why bother about hiring new teachers when you can have one TV educator take care of the whole school" attitude seems to be increasing in our country. But teaching by TV is still a small thing. My worry is commercial television and its effects on teaching. Notice I said teaching, not learning.

Let's take dramatics.

The mark of a fine teacher is his ability to make his subject come alive, to create interest and a desire for knowledge. In this sense, the teacher is an actor. He uses his voice, his movements, his expressions to hold attention and get his points across. In days of yesteryear, this was a comparatively easy assignment. The unsophisicated elementary-school child was well satisfied with a soupçon of drama. Television has changed that.

A NEW PHASE

Teaching has entered a new phase. Dramatic presentation and eye-catching visual aids strive to gain the sated attention of the child. We work with multicolored pie sections to teach fractions and luminous maps to teach geography. The teachers have taken to dressing for the purpose. A man will wear a bright Tartan tie in the hopes that such a conversation piece will lead to a more attentive study of the Stuart family's place in English history. Lady teachers appear wearing print frocks, the print being the states of the Union, their capitals and chief cities. In the more progressive schools, the female may sport blouses emblazoned with French or Spanish phrases—for the elementary-school foreign-language programs.

As the children become inured to this type of teaching, the dramatic impact must become greater. Soon we find a teacher flinging open the window and stating in loud, clear tones, "If everyone doesn't get one hundred percent on this arithmetic test, I shall fling myself out."

But the problem of dramatics or the lack of them is secondary to the problems confronting history teachers. History is by definition a systematic record of past events. History, insofar as we can judge, is based on truth as recorded through the ages. Television history is another matter.

In the interest of selling more cigarettes or deodorant, the television writer resorts to the "based on" technique. As an example we'll take Paul Revere's ride. This historically valid seed must be expanded to a one-hour show.

"The story as it stands wouldn't make a bad poem," the writers muse. "But we'll have to jazz it up a little if we want that spot on the 'Important Events in American History' program."

So they set out to make the story a little more "gutty"; that is, they ring in sex. Ignoring Paul's marital status at the time of the ride, they give him a girl in Concord. Also this girl is being wooed by a Captain in the British regulars. So Paul's ride, although ostensibly patriotic, is really done for much more basic reasons.

After that little story, the textbook version of Paul's ride seems drab even to the teacher. Attempting to rescue something, you question those who were lucky enough to see "Important Events in American History."

"What did you think of Paul Revere?"

Everyone's eager to answer. "He was great. Did you see him bop that guy with the beer mug?"

"Yeah. And how about at Concord when he jumped off the barn that was on fire onto his horse! Wow!"

You try to steer things your way. "How about what happened at Lexington?" Blank stares till finally someone remembers.

"Oh, yeah, that's where his horse lost the shoe and the blacksmith was a Story or Lory or something and Paul knocked him through the window onto the water wheel and down he went into the lake."

You nod. "Yes, but how about the other thing at the bridge. You know, when the farmers stood up to all those British soldiers. What did you think of those farmers?"

"They looked pretty corny to me, no uniforms or nothin'."

"Hey, how about those British uniforms with the white strap. They were keen!"

"You shoulda seen it on my color set, red coats and all! Boy!"

See what teachers are up against?

So far television has confined itself to historical mutilation and has steered clear of other subjects. Still, if the shortage of material gets any more acute, the writers may feel a need to tamper with math or spelling.

"Let's throw a saddle on this and see how it rides. Everyone knows that two and two are four. But suppose—just suppose someone finds out that two and two are five. Get the significance here? Every calculation made by man since the beginning of time is off by one. See the picture? Now here's the . . . "

I've heard of an opening in a one-room school up near Hudson's Bay. It only pays eleven hundred skins a year (usually beaver) but I'm considering the idea.

An Evaluation of the Project

MPATI'S Promise

MENDEL SHERMAN

In Phi Delta Kappan

THROUGHOUT the past academic year, a plane was flying high above the Indiana landscape transmitting a signal that was picked up on classroom television receivers in a sprinkling of schools within a 200-mile radius. By means of video tape and two ultrahigh-frequency transmitters, lessons in 21 subject-matter areas or levels were televised to students and their classroom teachers in the participating schools.

Spectacular though this phase of the Midwest Program on Airborne Television Instruction has been, its importance has been eclipsed by efforts to program content and methodology which would be acceptable to teachers in 13,000 schools in a six-state area.

The divergent reactions of teachers and students using the same television program suggest that the programs have met neither with universal approval nor universal disapproval. To one teacher, the thought of using the history program as a steady diet is so objectionable that he will consider leaving the teaching profession, rather than accept TV as a general teaching method. To another teacher, the history program is one of the best aids made available during the past 10 years. The reactions of students were equally extreme and divergent. Why the great range?

When examined closely, negative reactions by teachers are basically a protest against program content and methodology. TV as a medium of instruction is neither good nor bad. What we must somehow learn to do is to separate the "hardware" from content. We learned long ago not to criticize books per se but to evaluate the content of each book individually.

When the plane made its first flight a year ago, it carried with it the original purposes which, after years of planning, had emerged as the Airborne project. The two most important purposes related to instruction were: bring resources not readily available to the classroom; and raise the quality of instruction.

In at least partially serving the first purpose, the MPATI project has given many children their first instruction in foreign language and has exposed them to new experiences in science and other subjects that were not previously available. Concerning the second purpose, the MPATI has provided a type of in-service training to an

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extent not heretofore possible. A minimum gain is that every teacher from the most modern school plant to the most isolated country school can observe the methods, procedures, and materials used by carefully selected teachers from all sections of the nation.

After two years of MPATI planning and operation, several conclusions can be drawn with some confidence:

Televised programs can be transmitted from a plane to a sufficient number of potential users for the program to be economically feasible.

An increasing number of schools are using the lessons. The number is approximately 2,500 now.

Except for a few problem areas, the technical quality of reception can be very good to excellent, provided that the local installation is properly constructed. The "hardware" aspect is successful.

There is sufficient commonality in the instructional programs of the six-state area to provide a basis for televised programs which will be acceptable to a large number of teachers.

While many programs are received with enthusiasm, continuous improvement and revision are needed.

Although there are many suggestions for improvement, few administrators and teachers who have used the programs suggest that the experiment be stopped. Evaluations by teachers participating indicate general approval of the project.

In general, the community approves of the schools using the programs.

Smaller schools and school systems are among the most ardent supporters, but individual schools in the larger systems are also highly interested.

The personality of the studio teacher can be transmitted effectively by television. It is possible for the studio teacher to achieve a high degree of intimacy with the classroom teacher and the children.

A CRUCIAL STAGE

The project is now entering a crucial stage in its development. The initial two years of foundation support terminated this summer. Continuation depends on acceptance, participation, and willingness on the part of schools to supply funds.

MPATI has recently become MPATI, Inc., owned lock, stock, and plane by the member schools in the six-state area. Through their board of directors, the member schools own two TV transmitters, two planes equipped for broadcasting, and several thousand videotaped lessons. A staff with unique experience will be at the bidding of the board of directors to carry on the program with any modifications the member schools demand.

MPATI, Inc. has access to two television channels which, commercially, could be worth $1 million each. The projected annual operating budget will enable expansion until by 1965 there will be four or six channels with a tripling of program hours to a possible total of 180 hours per week. The budget will be financed partly by a renewed grant from the Ford Foundation and partly by the member schools. Funds from the grant are apportioned in decreasing amounts over a four-year period. Member schools will provide the added revenue to carry on all operations.

At a cost of one dollar per pupil a school can become a member and help decide program content and all aspects of its administration and operation. A school of 500 students, for example, can pay $500 (less $100 for charter members—those who join by October) and have the output of outstanding teachers of French, Spanish, and biology. At no added cost they can select from any of the additional 21 courses which appeared on the MPATI schedule during the second semester of 1962. Also, teachers of mathematics and science can observe the latest procedures, discoveries, and materials in their rapidly changing fields as prepared by a studio teacher with ample time and consultant assistance.

At present the telecast lessons are generally of the major-resource type. The course is presented in a series of integrated telecasts, with the studio teacher taking up perhaps half the class period and the classroom teacher using the remaining time to carry on activities more effectively taught by himself.

Program preparation has been confined for the most part to the studio. The foreign-language lessons do not appear to suffer from this restriction, but the film clips, photos, cartoons, and artifacts are often inadequate in other areas. Students need to see the "far away or long ago" rather than hear the studio teacher tell about them. This shortcoming can be corrected as soon as member schools make their desires known through their board of directors and accept financial responsibility for supplying additional materials.

Other problems can be solved also, but the biggest problem is that of deciding the proper place of television in the entire educational process. As a medium of communication, television can only distribute what we put into it. A protest against TV is usually a protest against content—against the type of teaching or the objectives sought.

Our real problems are the same as always—a need to study the what, why, and when of instruction; to study the individual, how he is constructed, what his needs are, how he learns.

When we know the characteristics of both men and machines and our educational objectives, we may achieve a coordinated learning arrangement or system in which each learning resource will contribute to its fullest potential. When this is done, television, with its ability to reach almost unlimited numbers instantly with the best that we can devise, will be in the front rank. ●

Do Your Questions Involve Learning?

What Is a Question?

JEAN and C. BURLEIGH WELLINGTON

In The Clearing House

WHERE is the capital of Georgia? Who was Descartes? What did Caesar do in France?

Questions, up and down the corridors of the nation's schools. Always questions. We utter them hour after hour, day after day, until they reverberate in the old school walls.

A colleague of ours recently asked a young student teacher, "When are you going to stop asking questions and start teaching?" This was a question, too, but not one to which the student teacher possessed the ready answer which she was expecting from her social-studies pupils when she asked them, "Who was Stonewall Jackson?"

The student teacher had not yet learned that the definition of the word *teaching* is not "to ask questions."

Sometimes we wonder what students really think when a teacher poses: What is Mars? Who was Socrates? Where is Stratford-on-Avon? Are they saying to themselves, "So who cares?" or, "I hope I remember this until after the test tomorrow, and then I can forget it"? As our friend implied, asking and answering questions do not necessarily involve any learning.

Then why do teachers persist in so many questions that their ghosts stalk the corridors from the first grade through graduate school? Sometimes, being facetious, we wonder if the teacher does not know where Stratford-on-Avon is and, therefore, he asks the student so he may find out. Every teacher we have asked insists that such a situation is absurd. They assure us they do not seek information, for they always know the answer themselves. Then perhaps he is trying to find out if the student knows what he knows. The teacher knows that Socrates was a Greek philosopher who lived around 400 B.C. So he asks the students who Socrates was to discover if they know what the teacher does. But this seems absurd too, and who can blame the student for his reaction—so who cares?

Robert Frost once said, "Long ago I gave up the idea of asking my students to tell me what I knew that I might discover if they knew

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as much as I did. Now in classes I ask questions in the correct sense of the word, for I want them to tell me something new, something I do not know."

Here is a man who asks a question for a reason which is not absurd. But if we are to follow his procedure, most questions now asked in schools will not stand the test. If we seek to learn something new from students, we cannot ask them to tell us anything which we already know.

Let's imagine that a school board passes an edict: No more questions allowed in the classroom, even on tests, unless a teacher finds out something new. An unfortunately large group of teachers might find that they had absolutely nothing to say in class. A goodly number would find that half or more of a class hour was unused.

The edict might force them to revise their questions and to begin to seek knowledge and understanding. Why do you think we talk about men from Mars? Why do you feel Socrates is passé? Why would you want to visit Stratford-on-Avon? Obviously, just prefacing a question with "why" is not enough. It is a matter of not having a preconceived answer in mind, not asking the student to guess what we already know, but of seeking his thinking and reasoning and beliefs.

Or perhaps we should introduce a Pavlov's gong every time teachers ask questions without good reason. This might help them to turn to themselves to ask a question in the true definition of the word. Something like "Is this question necessary?" would do. For the dictionaries give these meanings for *questions*: "debate," "investigation," "matter to be inquired into." No dictionary states that a question is defined by the term "teaching," or by the idea of asking someone to play a guessing game for the answer the teacher has thought of.

We do not ask edicts or other Big Brother tactics, but we are questioning teachers about their questions. Do your questions teach? Are they a crutch to check on students? Or—honest now—are questions asked to fill up time? Are questions the easy technic requiring neither planning nor creativity? Do you ask mostly the "give it back variety"? Does a question promote your desired aim better than another approach?

To be consistent, we cannot ask questions unless we seek something new. The questions we would ask here or in the classroom are designed to create anxiety for learning and to put in motion the process of critical thinking. They would develop first the individual's ability to define his own questions, and then his ability to discover answers which he can use to make his own conclusions and judgments in the light of known facts and research. This is the definition of the questions we believe should reverberate through the corridors of our schools and through the minds of our youth.

We aren't quite sure—what did *you* say a question is? ●

Reading Is Not a Process of Osmosis

What about Speed Reading and Comprehension?

ARNO JEWETT and DORIS V. GUNDERSON

In School Life

Is speed reading the open sesame to all knowledge? Are speed-reading courses worth the time and effort? The answer to these and related questions on speed reading will depend on the point of view of the individual.

The reader's aims and objectives should be a part of any consideration of speed reading. Rapid reading can be used to advantage in many situations. The average reader can learn to read both more rapidly and more efficiently. However, an individual does not read more efficiently merely by telling himself to do so; efficient reading depends on continual practice of the various reading skills.

The good reader utilizes context clues and specific and general meanings of words. He discerns the author's plan as he reads; he *always* reads with a purpose. If his purpose is to discover main ideas, he will read at a more rapid rate than if he is reading for details. Simply stated, the effective reader adjusts his rate to the purpose for which he is reading.

Many individuals read with excellent comprehension but read too slowly. Many professional people, for example, could read more rapidly and more efficiently than they do with no loss in comprehension. For them, a speed-reading course can be of benefit.

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However, there are many people in education who are aware that too much emphasis on speed reading may have adverse effects. Clarence Hach, head of the English department at Evanston, Illinois, Township High School, has pointed out that, "There are many charlatans today eager to earn some easy and quick money at the expense of parents interested in having their children improve their reading. Reading involves far more than speed, and often a speed-reading course can do much more harm than good . . . . "

In many other communities, unfortunately, there are still teachers and lay persons holding a mistaken belief that there is usually a casual relationship between speed of reading and comprehension. Thus, today there are intensive programs to accelerate pupils' rates of reading with the expectation that comprehension will automatically improve. Some teachers do not realize that rate of reading depends on many factors related to both the reader and to the printed material.

SPEED NEEDS VARY

Reading speed depends to a great extent on the reader's purpose as well as his motivation, experience, vocabulary, knowledge, intelligence, physical condition, and other factors. It depends to a large extent on the nature and difficulty of the material read, including the author's style, his vocabulary, organization of ideas, and use of examples, topic sentences, and summary paragraphs. Even the editor's layout is important: his use of illustrations—charts, diagrams, and pictures—and paragraph and chapter headings.

The type, amount, or extent of comprehension demanded of the reader is also important. A pharmacist reading a doctor's prescription must read for 100 percent accuracy, just as a 16-year-old reading a sales contract for a secondhand car should understand everything in the fine print. A student reading the sports page or a light novel may read fast, for he seldom needs to comprehend or recall everything.

Teaching pupils to read faster may or may not improve their comprehension. After research on the subject Arthur E. Traxler stated: "The comprehension of some bright but overcautious pupils may be improved by training them to read faster, but the same kind of training will work to the detriment of other pupils. Since speed without comprehension is worthless, it is believed that the greater emphasis should always be placed on comprehension in a reading program. . . . Mature readers adjust their rate according to the difficulty of the material and their familiarity with it, and . . . better readers adjust more readily than the poorer ones do. There is also evidence that in certain fields, such as science and mathematics, the pupils who have learned to read slowly and carefully are higher achievers than the fast readers."

The whole problem of the effect of speed on comprehension is particularly important when the place of mechanical devices in a reading-improvement program is considered. In a joint report on research in this topic, Arthur E. Traxler and Ann Jungeblut wrote: "The general conclusion to be drawn from these four studies is neither favorable nor unfavorable to mechanical aids. As was true of a good deal of earlier research, these studies (college and adult levels) do not indicate that any greater improvement of either speed or comprehension can be obtained through the use of mechanical devices than can be secured with more informal procedures."

There is, however, little doubt that many pupils and adults have developed slow, inefficient reading habits which can be changed, at least temporarily, by speed exercises of different types. It is possible to increase one's speed by reading relatively easy, interesting materials at a rapid rate and maintaining a record of one's progress. If the record is graphically portrayed, the progress is quickly noted and often has a motivating effect. Comprehension should be checked for each exercise.

Forcing oneself to read more rapidly should improve concentration, as the reader has no time in which to allow his mind to wander. In turn, improved concentration should result in more effective study habits. To maintain his level of reading efficiency, the reader should continue practice with similar materials at regular intervals. And he should work constantly to enlarge his vocabulary.

But to improve rate of comprehension, a person should learn to be flexible in his reading. He should decide, for example, whether his purpose is to skim a chapter to locate an important date, to follow detailed instructions for assembling a model plane, to enjoy the action and suspense in a novel, or to recall the main ideas and facts in an assigned chapter on science. If he is skimming for a fact, he should speed along at 1,500 to 2,000 words a minute, but if he is figuring out the requirements in a mathematical problem he might well move along at 100 words.

In a discussion of the characteristics of mathematical reading, one authority says, "The learner's rate is necessarily slow. There is no such thing as 'skimming.' Every word, phrase, and symbol must be digested. The reader becomes disposed to ask himself, 'What does this mean? How are the ideas related? In which direction do I go now? Is this statement always true?' "

Most important of all, pupils must realize that reading involves thinking—an understanding of what the author is saying, plus an evaluation of the validity of his message and an acceptance or rejection of some or all of his ideas. Reading is not, therefore, a matter of racing one's eyes across lines of print. Reading is not a process of osmosis. Rather it is the reader's assimilation of ideas as he reacts to ideas and feelings expressed through verbal symbols that are arranged in sentence patterns on paper. ●

SKILL in reading can be compared in some ways to a man's stroke in rowing or in tennis. We all have special idiosyncrasies about our skilled movements. No two of us really walk alike, swim alike, or read alike. . . . Read fast and well if you can, but do not despair of great success in the intellectual life if you must read slowly.—*Leonard Carmichael.*

Leadership Principles for Problem-Solving Conferences

NORMAN R. F. MAIER

In Michigan Business Review

IT is possible for a discussion leader to increase the ability of a group of people to solve problems by means of the application of certain principles. The principles stated below could serve as a guide to a discussion leader. No claim is made that this constitutes a complete list.

Success in problem solving requires that effort be directed toward overcoming surmountable obstacles. A problem situation is one in which there are obstacles blocking a goal. Some obstacles can be overcome more readily than others, and success in problem solving depends on locating these obstacles. Persistent attempts to overcome some obstacles might be doomed to fail.

A common tendency is to persist in following an initial approach to a problem. In other words, a particular obstacle is selected and pursued despite the fact that it cannot be overcome. Usually this obstacle is the most obvious or is one that previous experience has suggested. Yet, difficult problems require new and unusual approaches; if they did not, they would not be difficult problems.

Another common tendency leading to frequent failure is associated with attempts to solve problems by locating a person or group that is at fault. A solution to international problems that requires another nation to behave differently may meet with failure because the problem solvers cannot control the action they recommend. Lacking such control, when it is essential to the solution, represents an insurmountable obstacle. Successful solutions must be workable.

The starting point of a problem is richest in solution possibilities. The solution of a problem may be envisaged as a route from the starting point to the goal. The process of thinking about a solution is like proceeding along a particular route. Once one starts in a particular direction, one moves away from certain alternatives and thus reduces the number of possible

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alternative directions that may be pursued.

Each route may confront one with obstacles. A group may have successfully bypassed two obstacles along the way and then find difficulty with others at advanced stages of progress. Because of this partial success, it is difficult for them to revert and start all over again. Yet a new start is the only way to increase the variety of solution possibilities.

Problem-mindedness should be increased while solution-mindedness is delayed. By nature, people progress too rapidly toward a solution. This is solution-mindedness. Once a task is begun, psychological forces are set up to push the task to completion. Therefore, since the goal of a problem is to find a solution, energy and activity toward accomplishing this end are set in motion. This means that in almost any discussion the responses of various persons tend to interrupt the thinking process of one another. This is often disturbing.

Experimental evidence shows the value of delaying the reaching of a solution and spending more time focusing on the problem. Common experience also may be cited. Frequently, people disagree about solutions and later find that they have not even agreed on the problem.

A discussion leader can cause a group to be more problem-minded. Usually he is a strong force in encouraging solution-mindedness. He must not only inhibit this tendency, but encourage problem-mindedness in his group in the process of improving his leadership.

Disagreement can lead to hard feelings or to innovation, depending on the discussion leadership. Two strong forces make for conformity: fear of the leader's unfavorable judgment and fear of unfavorable responses from the group. The discussion leader must be prepared to deal with these forces. The leader must take the first steps in reducing conformity by withholding judgment, entertaining criticism, and trying to understand strange ideas.

IDEA GETTING

The "idea-getting" process should be separated from the "idea-evaluation" process because the latter inhibits the former. "Idea getting" requires a willingness to break away from past experience. It is this process that requires an escape from the bonds of learning and demands that we search for unusual approaches and entertain new and untried ideas. "Idea evaluation" involves the testing and the comparison of solutions in the light of what is known, their probability for succeeding, and other practical considerations. It is the practical side of problem solving.

The discussion leader can delay a group's criticism of an idea by asking for alternative contributions, and he can encourage variety in thinking by encouraging the search for something different—something new. Turning ideas upside down, backwards, trying out different combinations of old ideas all represent ways to encourage the expression and generation of new ideas.

Choice situations should be turned into problem situations. When confronted with two or more alternatives, the characteristic of a *choice* situation, behavior is blocked until one is selected. The characteristic of a *problem* situation is confronting an obstacle that blocks a goal. Behavior is blocked until the obstacle is removed or surmounted.

Creative alternatives tend to be overlooked in choice situations because a choice is made between the obvious alternatives. Energy is directed toward making a choice and thus detracts from a search for additional alternatives. The discussion leader should approach each choice situations as one in which the possibility of additional alternatives exists. By encouraging this searching behavior, he is turning a choice situation into a problem situation. Only after other alternatives are found or invented should the process of choice making be undertaken.

Problem situations should be turned into choice situations. Because problem situations block behavior, a natural reaction is to act on the first solution that is obtained. Discovery of the first successful possibility tends to terminate the search. Finding one solution does not preclude the possibility that there might be others, yet people behave as though this were true.

If two and even more solutions are obtained, the problem situation is changed into a choice situation, offering two advantages: It leads to more unusual solutions, which tend to be more creative; and it permits opportunity to select the best of the alternatives.

Solutions suggested by the leader are improperly evaluated and tend either to be accepted or rejected. It is basic to group discussion that the leader's ideas receive a different reception than those coming from the participants. His position is seen as one of power even when he has no formal authority over the group. A leader exerts considerable power by merely approving or disapproving of ideas that are expressed. Thus a leader's suggestions are either blindly followed or resented rather than weighed.

The best way to avoid these undesirable reactions is for the leader to refrain from introducing his views or passing judgment on ideas expressed by participants. His job is to conduct the discussion and show his proficiency in this regard.

These problem-solving principles are primarily relevant to handling intellectual aspects of discussion. In dealing with emotional aspects, the leader performs a more permissive function and serves more in the role of a group counselor.

The skill requirements in conference leadership are not difficult to learn. The problem lies more with interference caused by old habits. Once one can get away from these and start fresh, the battle is half won. ●

Fuzzy Impressions of Words

Learning to Spell Is Learning to See

ELIZABETH TOOHY

In Elementary English

MANY students with spelling deficiencies need the same kind of practice the science student gets while learning to use a microscope. They have not learned to see.

Their vision is normal, but often they cannot even copy correctly. They write *of* for *on*, *when* for *while*, *that* for *what*, *then* for *than*, *their* for *there*, and so on. Their fuzzy impressions of words are analogous to the blobs a novice sees through a microscope. How can they "visualize" a word, as their spelling books direct, when they have not seen it precisely?

Thomas Henry Huxley held that learning to draw was a necessary part of elementary education and that it required no more special gift than learning to write. It requires that the youngster see with exactness. The whole-word approach to reading may lend itself to seeing blobs. Instead of scrutinizing word structure, the child will guess and bluff to give an appearance of speed. Such hit-or-miss seeing and reading becomes patent when the pupil is asked to *copy* a passage correctly.

Not infrequently teachers find that a boy or girl reaches eleventh grade without mastery of common words. At that point in the student's career it would be more realistic, according to business education expert Louis A. Leslie, for the teacher to concentrate on placing the student after graduation in a job where spelling will not be an important requirement, than to imagine she will succeed where other teachers have failed for 10 years.

The spelling of such pupils may, however, improve in typing classes. Some youngsters apparently never make a practice of looking closely at words until they start copying on a typewriter. Their punctuation may similarly improve.

Reliance on rules in spelling has been seen to create confusion; hence we now put emphasis on correct mental images. These require that the pupil learn how to see,

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and copying prose accurately is an excellent assignment for the purpose, old-fashioned though it might sound.

To rail at the inconsistencies of English spelling is as tiresome as it is futile. Linguistics scholars, whose province is the spoken language, particularly show impatience with spelling traditions of English. Dr. Frank Laubach, teacher of the illiterate around the world, called English spelling "iron-clad chaos." Bernard Shaw bequeathed a fortune to reform it. Innovators never tire of attempts to simplify it. The linguistic scholar Edgar Sturtevant has suggested that the most efficient way to uproot "the absurd orthography of English" would be to stop teaching spelling altogether. Permit people to spell as they pronounce, he recommends, and you will shorten the school curriculum for more important pursuits and save considerable money. Only the conservatism of persons having vested interests in the status quo, he says, prevents this step.

Let us suppose that the Sturtevant Plan were adopted. Our goal is both simplified spelling and a simpler alphabet—one letter only for each speech sound. We are to spell as we pronounce. Chaos becomes less iron clad. *Multipacation, foopball, viadock, probly, imformation, waffor,* and *coutenace* are typical of simplifications that would ensue.

It seems to escape Sturtevant that pupils do spell as they pronounce. If time-saving is his goal, he might better push the study of shorthand in elementary schools. It is phonetic and more efficient than the Latin alphabet.

A literature accumulated over the centuries, such as English, will reflect in its spelling the processes by which the language was derived and developed. For people of illiterate cultures, on the other hand, a fairly efficient spelling system based on the language as spoken can be devised and taught. This Dr. Laubach has done. But since language, like any other living thing, changes with time, will such a spelling system remain phonetic and simple?

Boys and girls can learn to spell English as it has come down to them, but not unless they see words accurately.

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JOHNNY was failing in school because, he said, he couldn't see the blackboard. An extensive eye examination proved that his vision was perfect. A psychiatric exam proved that there was no emotional or mental reason for his trouble. The doctors finally said, "Johnny, we give up; we just don't know why you can't see the board." To which Johnny replied: "Why didn't you ask *me*? I can't see the board because the boy who sits in front of me is too big." —From *North Carolina Education.*

Fuse Blown? Don't Panic

Mechanics for Homemakers

WILLIAM M. SOUTHARD

In Illinois Education

ON "dress-up" day last fall at Highland Park High School, Illinois, a visitor to the industrial-arts department could have witnessed the unusual scene of 17 high-school girls, wearing fine clothes and high-heels, installing a homemade repair kit to stop a leak in a water pipe. The instructor was pointing out to the girls that emergencies in the home do not always occur when one is ready for them.

The girls were taking a new one-semester, one-half credit course entitled Girls Home Technology, a course designed to help them handle emergencies they may encounter later in life with their own homes and families.

For instance, what would the lady of the house do when daddy's at work, the children at school, and she discovers a leaking gas pipe? What should she do if alone at night and a light fuse blows? While these are perhaps extreme examples, the idea that they were preparing to meet emergencies and to learn more about the home than the average housewife knows was a challenge the girls accepted with enthusiasm. Without exception they responded as though enjoying every minute of it.

Some were perhaps more interested in phases applicable to interior decorating, and others were perhaps more intrigued with home-construction points, but all were glad they took the course and expressed their satisfaction by presenting the instructor with a trophy at the end of the term.

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The course, now a conventional elective, was slow in evolving. It is based on a long period of planning. Members of the industrial-arts department first discussed the idea of offering to interested girls an oportunity to become familiar with some of the simple home repairs. These objectives were set down in writing proposing that through actual experience in work-sheet-type exercises, the girls would be given valuable knowledge concerning small problems in the home and proper methods and techniques of correcting them.

The students, all girls who might ordinarily have taken home economics, work in the areas of wood shop, interior decorating, auto mechanics, and electricity.

Activities in woodshop include:

recognizing types of faucets and correcting leaks; making drawings of homes with emphasis on location of appliances, plumbing fixtures (and learning at least where to shut the water off and to make temporary repairs); removing grease spots from furniture and rugs; caring for hardwood floors; learning nomenclature and elementary use of simple hand tools; and going through exercises in the use of fasteners—such as screws, nails, mending plates, corner braces, etc. They also learn the care and repair of a door lock.

In the interior-decorating area, the girls have experience with the color wheel in mixing colors; how to care for and use in a safe manner the brushes, thinners, and finishing supplies and equipment; how to use abrasives such as sandpaper and steel wool; make-up of enamel and the proper place for enamel and flat paint; and exercises in drawing floor plans of their homes, showing the location of all appliances, electrical outlets, meters, room partitions, etc.

The auto-mechanics phase brought an excited and enthusiastic response. The girls skip over major repairs but do learn to recognize danger signs in connection with the various instruments, gages, regulators, and controls. The girls learn how to change a tire and learn about car maintenance including the proper time to winterize a car, how often to change oil and lubricate the chassis, and other routine jobs that go with owning a car. They also are introduced to the power lawn mower during the auto-mechanics phase.

In the area of electricity, the girls are instructed to avoid the areas which require the skill of an expert. They are taught, however, simple repair and protective jobs such as installing a new appliance plug, changing fuses, identifying and marking the fuses that control circuits, safety measures concerning electricity and water, and reading an electric meter. They are made aware that each circuit has certain loads and limits.

Now another group of girls is taking the same course and, if possible, the second group is showing even more interest and sincerity than did the first group in learning tasks usually left to the man of the house. ●

● "LAST year," said the professor of logic, "people bought 10 million quarter-inch drills. Why? One pupil replied that obviously they wanted quarter-inch drills. "No," said the logician, "they wanted quarter-inch holes."—From *North Carolina Education.*

● AFTER seeing his mother measure cloth from nose to arm's length, Willie brought her a piece of rope and said, "Smell this, Mom, and see how long it is."—From *Pennsylvania State Journal.*

A 132%
Increase
in 10 Years

Special Education Enrolments in Public Schools

ROMAINE P. MACKIE and PATRICIA P. ROBBINS

In Exceptional Children and Youth

DURING the years 1948 to 1958 there was a rise of 132 percent in enrolments in special-education programs in the public day schools across the nation, according to data collected by the U.S. Office of Education. This is more than three times the rate at which total public elementary and secondary enrolment increased during the same 10-year period.

Twenty-five years ago, only 750 local public-school systems reported enrolments of exceptional children in special-education programs. Ten years ago that number had doubled. By 1958 approximately 3,700 systems reported enrolments in special-education programs.

This expansion is one measure of progress toward this nation's goal of special programs for all handicapped or gifted children who need and can benefit from it. Since there is no evidence of a marked change in the prevalence of most handicapping conditions among school age children and youth, it is evident that some very real gains have been made.

In February 1958, 882,066 children were reported to be enrolled in special-education programs. As the table (page 51) reveals, about one-half were receiving special instructional services primarily because of speech defects, and about one-fourth because of mental retardation. The remaining one-fourth because of blindness, partial loss of vision, deafness, impaired hearing, crippling conditions, special health problems, serious maladjustment, or giftedness.

Sharp differences ocurring in the rate of growth of special-education enrolments from one area of exceptionality to another attract attention. The most striking expansion took place in the area of the blind, where five times as many were in special public-school pro-

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Reported from Exceptional Children and Youth, *U.S. Office of Education Publication OE-35019 (1961), 1–14.*

grams in 1958 as were in 1948. The number of mentally retarded and gifted children receiving either full- or part-time specialized instruction more than doubled during this period, as did the number receiving speech correction.

Two programs—one for partially seeing children, the other for hard of hearing children—are not developing fast enough to keep pace with the increase in total public school enrolment. This may suggest a need for evaluation of educational programs and opportunities for children who are not blind or deaf, but who have sufficient loss of vision or hearing to interfere with school progress.

Virtually no change has taken place in the total enrolment of children with crippling conditions and special health problems. While difficult to evaluate, this finding raises the question of whether the prevalence of any of these conditions is decreasing, whether changing educational methods and philosophies have resulted in larger numbers of such children in regular school programs, or whether the schools are not, as the finding suggests, providing sufficient special-education opportunity.

Another measure of progress can be observed in the variety of multidistrict special-education programs, sometimes encompassing one or more counties, developed to meet needs in sparsely populated areas. A large number of reports in the 1958 survey were from small school systems, many of which identified enrolments of exceptional children from as many as 10 or 20 communities.

Special Education Enrolments in Local Public School Systems, 1958

Area of Exceptionality	*Number of Pupils*
Blind	2,844
Partially Seeing	8,598
Deaf	6,424
Hard of Hearing	13,113
Speech Impaired	486,944
Crippled	29,311
Special Health Problems	23,077
Socially and Emotionally Maladjusted	28,260
Mentally Retarded (upper range)	201,406
Mentally Retarded (middle range)	16,779
Gifted	52,269
Other	13,041
Total	882,066

A close study of the findings reveal two significant facts about the children. One is the extent of provision for the exceptional child of nursery and kindergarten age; the other is the continuing expansion of programs for the exceptional child of secondary-school age.

This means that while educators were reaching out to meet needs of the very young, they were also extending special opportunities to adolescent youth. Although the number of older exceptional children needing special education has not been determined, a comparison of secondary and elementary enrolment data suggests that the full potential of special education for the secondary level has not yet been reached.

The nearly 900,000 children enrolled are served through several types of special-education programs. Across the nation, the full-time, selfcontained special class plays a major role for most types of exceptional children, particularly for the deaf, mentally retarded, and the gifted. Part-time instruction in a specialized program and part-time instruction in a regular class, instruction in the home, and instruction in a hospital or residential facility are among other program types. The statistics collected give only a general outline of the types of programs and point to a need for a number of studies to be made in this area.

The survey did show that today, as never before, exceptional children and youth have opportunity to participate in specialized instructional programs suited to their needs and capabilities. Nevertheless, it appears that for every one enrolled in a special-education program, three others are not.

Any attempt to ascertain progress in this area is limited by a lack of current, scientifically based figures. Despite rapid enrolment gains, it is clear that much remains to be done. Closing the gap between need and service will be accomplished only through the cooperative efforts of many people in overcoming some major obstacles. One is the current shortage of special teachers. Competition for manpower is expected to continue throughout the 60's. Another is a predicted increase of about 20 percent in the school-age population during the next decade, an increase that is certain to result in even larger numbers of children needing special education.

Further, the nation is only at the threshold of an era when accumulated experience coupled with new knowledge from medical, educational, and social research will have a profound effect on special education. Some of these research findings will form a basis for school program improvement and should be promptly and widely circulated. Qualitative as well as quantitative advances must be made if exceptional children are to receive the education they require. ●

AN inquiry by the International Bureau of Education concerning the special education of mentally handicapped children shows that only 10 countries at most have available any statistics from which the total number of such children can be estimated with a degree of accuracy. And the proportion of these children receiving special education is not high in any of these countries. The figure seems to be about a fifth or a third of the total number of school-age mentally handicapped children in countries which are the best equipped educationally and 2 to 3 percent in other countries.

★With Education in Washington★

THE EDUCATION DIGEST WASHINGTON BUREAU

Clean Slate.—As the new school year starts, the Kennedy Administration may be said to be wiping its slate clean for a fresh start in the field of education. The HEW Department has a new Secretary, the U.S. Office is getting a new Commissioner, and with this Congress apparently content to face the voters with a record of little or nothing voted for schools and colleges, the President is already making his legislative plans for next year.

The legislative scene, as adjournment neared, was one of unrelieved pessimism. Education was pointedly omitted from the list of bills the President wanted passed before Congress went home. The House and Senate were deadlocked on the Administration's bill to aid higher education, chiefly because the House insisted on grants to private as well as public colleges, while the Senate stood firmly for loans only to private colleges, because many are church-related.

In an effort to achieve agreement, Sen. Wayne Morse (D-Ore.) proposed that a "standing to sue" provision be attached to the bill to secure a U.S. Supreme Court opinion on grants to private colleges. Earlier this year, he championed the same legal remedy for the religious issue in connection with aid to elementary and secondary education.

Senator Morse, one-time dean of the University of Oregon Law School, is a constitutional authority of note. He points out that, despite dozens of federal programs aiding church-related colleges, none have been tested in the courts. The Administration believes that these programs are very likely constitutional, while the few laws aiding church-related elementary and secondary schools—such as donations of surplus federal property—may very well someday be held unconstitutional.

Yet hardly anyone except Senator Morse seems interested in establishing, swiftly and definitively, the constitutional limits of federal aid to church-related institutions. When the House-Senate conference committee adopted the Morse "standing to sue" provision, the parliamentarian of the House promptly ruled that it was not germane, since the idea had not been discussed or voted upon by either House. The rule of germaneness, an essential for orderly legislative procedure, is not always applied with such rectitude and celerity, however.

New Faces.—Anthony J. Celebrezze, who was elected Mayor of Cleveland five times, fumbled the question of aid to church-related schools and colleges at his first press conference a few days after becoming the fifth Secretary of Health, Education, and Welfare.

Intimates report, though, that he was simply a bit nervous and inadequately briefed.

He is said to agree completely with the Administration's position, which holds that almost any type of aid to higher education is constitutional, but that aid to church-related lower schools, if any, must be for narrow purposes clearly related to important national needs. His own views are as yet unknown, and they may never become known. In any event, it may be noted that he and his wife are products of the public schools, as are his children.

The identity of the sixteenth Commissioner of Education was the subject of much speculation as Celebrezze took office. Former HEW Secretary Abraham Ribicoff chose the outgoing Commissioner, Dr. Sterling M. McMurrin, a University of Utah philosophy professor, after a five-month search last year. In contrast, the White House is hoping to announce the new Commissioner early this month, as it accepts Dr. McMurrin's resignation.

Known to be under consideration for the post are the chief school officers of two New England states and several political science professors, all liberal Democrats who have held elected and appointive office. Appointment of a political scientist would be a plausible, and perhaps successful, effort to raise the stature of the U.S. Office in the eyes of Congress and others.

For despite its current half-billion dollar budget, creditable administration of its new programs, and its recent functional reorganization, the Office has yet to attain its rightful place in the spectrum of American education. Though it voted $32 million recently for educational television facilities, Congress pointedly specified that the HEW Secretary, not the U.S. Office, shoud distribute the funds.

"Ideally, the new commissioner would have the executive dynamism of Defense Secretary McNamara, the educational prestige of James Conant, and the political acumen of Sargent Shriver," according to an article in *Science,* the weekly organ of the American Association for the Advancement of Science. "No man combines these qualities, of course, but if one did, it is unlikely that he would want to devote his time to rebuilding the Office of Education."

Why not, we'd like to ask? Can we defend ourselves, explore space, contain the population explosion, and handle automation and recessions without a greatly improved, more generously financed network of educational institutions? Short of the Presidency, is any job in Washington more vital to the future of the American people?

Classroom Prayers.—Now that the immediate, emotional reaction to the U.S. Supreme Court's decision on New York's official classroom prayer has subsided, it seems apparent that the practices of few schools will be affected, at least until the court rules on certain other pending cases.

Even in New York state, only those districts that chose to adopt the 22-word Regents' prayer must now change their opening exercises. Sioux City, Iowa, dropped a prayer because, as its school officials interpreted the Supreme Court's decision, the prayer was probably unconstitutional.

Arizona, California, Illinois, Louisiana, Nebraska, Nevada, South Dakota, Washington, and Wisconsin had banned religious exercises before the Supreme Court spoke, either by rulings from state courts or by decision of the state educational agency. In 18 other states, Bible-reading, or prayers, or both, are either required or authorized by law. They are Alabama, Arkansas, Delaware, Florida, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Maine, Massachusetts, Missisippi, New Jersey, North Dakota, Oklahoma, Pennsylvania, and Tennessee.

Practices in Pennsylvania, Maryland, and Florida are involved in cases that may come before the Supreme Court at its current term. Special significance is inevitably attributed to the form of opening exercises in the Nation's Capital, which is governed directly by Congress. Superintendent Carl F. Hansen has asked the Corporation Counsel of the District of Columbia for a ruling on Bible-reading and the Lord's Prayer.

Low-Cost ETV. — The Federal Communications Commission is considering approval of a new ETV system, cheaper than conventional television or closed-circuit systems, which would be limited to nonprofit educational institutions. The experimental equipment was tested at Plainedge, N.Y., with the cooperation of Union Free School District No. 18 on Long Island. A transmitter on the high-school roof sent a good signal into seven other schools, where it was converted by a special instrument and then presented on a conventional television receiver.

Since its signals cannot be received without a special converter, the system is classed as a private rather than a broadcasting operation. The central transmitter can send different material simultaneously to separate classrooms, greatly expanding its possible uses. Though the exact cost of the equipment is unknown, the FCC estimates that a single-channel system serving 25 schools would cost one-fifth to one-third as much as a moderately powered TV broadcasting station.

Physical Fitness.—President Kennedy is pleased at the greater emphasis given to physical fitness by the schools, but he urges even greater efforts in the coming year.

The President's Council on Youth Fitness has reported on its pilot projects involving more than 200,000 children in North Dakota, Missouri, Oklahoma, Georgia, and Pennsylvania schools. In those with physical-education programs, an average of 25 percent of the children failed the Council's test of physical fitness at the outset. In schools without a program, 46 percent failed. At the end of the past school year, the failure rate had dropped to 5 percent in schools with a physical-education program and to 11 percent in the others.

A sampling of 108,000 public schools by the U.S. Office of Education indicated that only about 40 percent of boys and girls have a daily period of vigorous physical exercise. However, testing for physical fitness increased 24 percent and the number of schools offering some type of physical-fitness program increased 13 percent.

"These pilot projects and surveys indicate that, at best, one-fourth of our 40 million school children cannot pass even a simple screening test of physical performance," the President said. "This conclusively shows how much remains to be done, and this is the critical time of the year."

Back to School.—This has been an especially rewarding summer for some 6,000 youngsters who spent their vacations working in Washington. The federal agencies have always hired temporary workers for the summer, most of them students, but no one had any idea how many were involved until the President decided this year that the government should pay some special heed to its student employes.

As each one reported for work this year, he received a letter of welcome from President Kennedy and a schedule of meetings during the summer. When the first meeting was held at Constitution Hall, the President was as surprised as anyone else to find that only 3,500 could be accommodated and that an additional 2,500 were outside in a downpour. Until then, no one had any very firm count, but now it's known that temporary student employes total about 1.5 percent of the Washington work force.

During the summer, the students gathered several times at Constitution Hall, in relays, to hear bipartisan lectures by high-ranking officials of the three branches of government. They were encouraged to elect officers, meet on their own, and hold seminars, etc., within their agencies. As they scattered to return to school and campus, they left behind questionnaires for the personnel officials to analyze and use when planning a better program for next year.

This program has not been overtly political. The student employes appeared to include as many of one party as the other, and no criticism was heard either from the students or Congress. In fact, the whole affair is consistent with the interest the President has repeatedly indicated in young people. He has talked with each group of Peace Corps volunteers as it went overseas, and hardly a week goes by that he doesn't greet some group of students, foreign or domestic. If this is politics, it's the best kind. ●

Educational News

NEA Votes Sanctions

THE phrase "professional sanctions" has entered the national educational field. The National Education Association, at its annual convention in Denver in July, approved the use of sanctions—as opposed to strikes—as a means of obtaining better working conditions for teachers.

The delegates voted to use professional sanctions against school systems engaging in practices considered deleterious to the welfare of education. Although the resolution did not spell out what sanctions would include, it was indicated that, in effect, NEA would discourage teachers from accepting jobs in these school systems. It wouldn't ask teachers currently there to quit, although it might induce those in service not to accept contracts. The NEA will also deny a "blacklisted" school the use of its teacher placement service.

The convention devoted much time to a spirited discussion of whether teachers should belong to unions or to professional groups. The resolution adopted reiterated NEA's position in favor of professional negotiations as opposed to collective bargaining.

Other controversial issues discussed at the convention included the manner of teaching about communism and the effect of the extreme right-wing pressures on the nation's schools.

Hazel Blanchard, elementary-school principal at Fresno, Calif., was installed as president of the organization for 1962–63. She succeeds Ewald Turner, junior-high-school counselor at Pendleton, Ore.

Schools to Lease

A NEW plan to lease complete school buildings is now possible through the recently-formed School Leasing Company, Chicago, Ill., according to an article in *School Boards*. The plan is designed to help school districts plagued by the inability to get community support for bond issues to finance new building programs.

The lease arrangement, the company officials point out, will permit school districts to make payments out of general funds rather than resorting to a bond issue. Buildings may be leased for 15 to 25 years, with the cost amortized by monthly or yearly payments. At the end of the period, the school district becomes the sole owner of the plant.

The School Leasing Company will lease a complete school plant, including equipment and furniture, if desired. Company officials state that schools will be built according to the district's own specifications, with no attempt to regulate the design or equipment.

New Standards

FIVE years of college work will be required for an elementary-teacher certificate in New York State, effective Sept. 1, 1966. The present minimum is a bachelor's degree.

The new regulations call for greater breadth of study in the liberal arts and for concentration in at least one selected academic subject. The number of hours of supervised student teaching and observation will be increased from 240 to 300. In effect, the new regulations will decrease the proportion of "how-to-teach" courses to that of subject-matter courses and practical internship.

Candidates preparing for teaching will be permitted to begin classroom work with a provisional certificate after four years and will have five years in which to meet the fifth-year requirement.

The new standards were recommended after a two-year study. It follows the raising of academic requirements for high-school teachers in the state in 1960.

The Dropout Problem

CONCERN over dropouts has reached new proportions, as witnessed by the number of articles on the subject in various national magazines and by the efforts being made to study and solve the problem.

Millions of dollars are now being spent by local and state governments to find ways of stemming the disturbing exodus. And cities from coast to coast are developing experimental programs which they hope will find the causes of the problem and help in its solution. Among the projects are the following:

The New York legislature has given $200,000 to local schools for participation in a state antidropout program called Project Able. And President Kennedy recently authorized $12,600,000 in federal grants toward a program to wipe out juvenile delinquency in New York City's lower East Side.

Governor's commissions have been formed in California, Florida, and Washington to study the dropout problem and develop or expand preventive programs. The Maryland Department of Education has set up a similar commission.

In Gary, Ind., a special program under which schools are referring all dropouts to a youth commission is now being conducted. Los Angeles schools have put the emphasis on vocational-guidance programs, and following up those who leave school early.

This September an experimental program to "strike at some of the preschool roots of low performance" and thus forestall dropping out in the teenage years will go into effect among kindergarten pupils in Racine, Wis.

And, of course, the Ford Foundation in the last few years, has financed a number of programs to try to combat the dropout problem and the resulting juvenile delinquency problem.

Religion in Schools

The Florida Supreme Court this summer ruled that daily reading of the Bible and recitation of the Lord's Prayer in schools is constitutional, as long as children whose parents object are excused. The court said that to deny pupils the right to hear verses of the Bible "because a minority might suffer some imagined and nebulous confusion is to approach the ridiculous." The case, brought by a group of Miami parents who object to the religious practices, is expected to be appealed to the U.S. Supreme Court.

A New Common Market

PLANS are afoot for creation of an "educational common market" linking the state universities of Minnesota, North Dakota, South Dakota, Iowa, and Wisconsin, according to *Education U.S.A.*

The plan would permit a student in southwestern Minnesota, for example, to attend the more convenient University of South Dakota, with Minnesota taking care of the differential between his costs at the University of Minnesota and the higher "out-of-state" charges at the University of South Dakota.

Action by the legislatures of each state will be required to put the plan into effect.

Modular Schools

AN "erector-set" approach to school construction, designed to give overburdened taxpayers more space for their dollars, is on the drawing boards at Stanford University's School Planning Laboratory.

Called the modular plan, it is a standardized system of school construction in which every component down to the bookcases is flexible and interchangeable. The plans must be in the blueprint stage by 1964, because that date marks the start of construction of California's first modular high school at San Jose. Two succeeding schools are scheduled for occupancy in 1967 and 1969. Each of the three modular schools will be designed by a different architect.

The project is supported by a $50,000 grant from the Educational Facilities Laboratories, Inc., a Ford Foundation organization established to help American high schools and colleges develop their physical plants.

American Education Week

"EDUCATION Meets the Challenge of Change" will be the theme of this year's American Education Week, to be observed November 11-17. The theme will enable school systems to report on improvements made in the last few years, on curriculum changes which benefit their pupils, on new school construction, on programs for getting and keeping the best teachers, on effective new teaching methods, and on improved facilities.

As in the past, daily topics have been selected for emphasis during the week. These are: "Our American Heritage," "A Modern Curriculum," "Effective Teaching," "School-Community Partnership," "Lifelong Learning," "International Understanding," and "A Look Ahead."

American Education Week is

sponsored by the U.S. Office of Education, National Congress of Parents and Teachers, American Legion, and the National Education Association.

TV Economics Course

A NEW national college-credit television course on The American Economy is scheduled to start in September on the CBS-TV network.

Sponsors of this new two-semester course in economics are the American Economic Association, the Joint Council on Economic Education, and Learning Resources Institute. The National Task Force on Economic Education is serving as an advisory committee.

New Biology Curriculum

AN entirely new biology curriculum is in the process of being introduced to the nation's schools as a result of a three-year project known as the Biological Sciences Curriculum Study (BSCS).

The object of the new high-school course is to make the study of biology an introduction to the scientific method of inquiry rather than, as formerly, an exercise in remembering names of structures and processes and textbook definitions and explanations. A key element of the revised program is the "laboratory block" requiring six weeks of intense effort by the student, during which time all class work centers on the single subject under investigation. These are planned in areas of biological interest which have no final answer and which present the idea of research to the student. The student cannot look into the book for the answers for there are no answers to be found.

A writing conference of the BSCS was held this past summer at the University of Colorado to make refined versions of the material developed in two previous summer writing workshops at Colorado. The materials revised this summer were used by 50,000 students and 500 teachers in 37 states last year. Out of the latest revisions are expected to come the textbooks and laboratory guides which will be made available for commercial publication and distribution next year.

The project, based at the University of Colorado, is under the direction of H. Bentley Glass, professor of biology at Johns Hopkins University. It is supported by the National Science Foundation.

DATES OF THE COMING MONTHS:

Oct. 8-12, National Council on Schoolhouse Construction, Denver, Colo.

Oct. 12-17, Department of Rural Education and Division of County and Rural Area Superintendents, NEA, Wichita, Kan.

Oct. 15-19, Association of School Business Officials of the United States and Canada, Dallas, Tex.

Nov. 4-5, Association of Urban Universities, Louisville, Ky.

Nov. 11-17, American Education Week.

Nov. 21-24, National Council for Social Studies, Philadelphia, Pa.

Nov. 23-24, National Council for Geographic Education, Chicago, Ill.

Dec. 3-7, American Vocational Association, Milwaukee, Wis. ●

New Educational Materials

The Ax-Grinders. Mary Anne Raywid. New York: The Macmillan Company, 1962. Pp. viii + 260. $5.00.

In this book the author is concerned with presenting information about those identified as illegitimate" critics of public education. The author does not attempt to refute the charges hurled by the critics; she examines the personalities, sources of financial support, methods, and extent of collaboration.

Detailed descriptions of attacks on the public schools of two communities—Tenafly, N. J. and Montgomery County, Md.—are described.

The causes producing attacks on school systems are analyzed as well as their prevention and cure. A short chapter tells how to conduct a community selfsurvey as an aid to prevent conditions developing that are favorable for an attack to be launched.

Mary Anne Raywid, an assistant professor of education at Hofstra College, contends that not only our schools but also the bases of democracy are a target under fire in these attacks on the public schools.

Teaching Machines. Benjamin Fine. New York: Sterling Publishing Company, Inc., 1962. Pp. 176. $3.95.

In this report on selfinstruction devices, the author predicts that the great majority of school systems in this country will introduce teaching machines within the next five years. He does not view the machine as a teacher replacement.

"There is much more to education than the embedding of facts in young minds—which is what a machine does supremely well," he says.

Dr. Fine writes that the best thing about teaching machines is that they allow each student—bright, average, or dull—to advance at his own rate. He calls for a central clearing house to evaluate and recommend programs, machines, and programed texts. He also recommends that programs be designed so as to be interchangeable for the different types of machines.

Although he urges more experimentation, he believes that problems involved with introducing selfinstruction devices are outweighed by the contributions that programed learning can make to education.

The Drop-outs. Solomon Lichter, Elsie Rapien, Frances Seibert, and Morris Sklansky. New York: The Free Press of Glencoe, 1962. Pp. xiii + 302. $5.50.

This is a report on a three-year, treatment study of intellectually capable students who wanted to leave or had dropped out of school. Designed as a study in depth, using casework treatment as a method, the project was carried out by a research team sponsored by the Scholarship and Guidance Association. One hundred and five students, 60 boys and 45 girls, from 25 Chicago high schools formed the sample.

The report examines the serious emotional problems and difficulties of the drop-outs at home. The usefulness of prolonged counseling is illustrated, and there are 10 case histories that seek to identify links between emotional and familial problems at home, underachievement and behavorial problems at school, and dropping out of school.

Treatment of youngsters and parents is discussed and some techniques that were helpful in aiding distressed youngsters are described.

From this concentrated effort at treatment of 105 adolescents, intellectually capable but failing, in Chicago's public schools, the authors have prepared a brief, 12-point teacher's guide. The points made in the guide should be valuable to all adults with an interest in our schools.

Suffer, Little Children. Max Rafferty. New York: The Devin-Adair Company, 1962. Pp. 166. $3.00.

With a subtitle of "Some Reflections on American Education," this book is a blunt and wide-ranging criticism of educational theories and practice affecting the students in our schools today.

In a brisk, dramatic writing style, laced with sarcasm and humor, the author criticizes textbooks, teachers and teacher training, curriculums, and many other items and issues while leveling charges that our educational program is bogging down in conformity and mediocrity.

The question is asked, "How are we fixed for survival?" No one is spared as the author, a district superintendent of schools at La Canada, Calif., attempts to sound an alarm by dealing roughly with theories and practices of past and present.

New departures and techniques are proposed, including leadership schools for the gifted child and exclusion from the everyday classroom of "slobs who have passed the point of no return" and are socially uneducable.

Individualizing Instruction and Education for the Professions. Chicago: The National Society for the Study of Education, 1962. Pp. xiii + 337 and xi + 312 + cvii. $4.50 each.

The two volumes comprise the 61st Yearbook of the National Society for the Study of Education.

Individualizing Instruction (Part I) was prepared by a committee composed of Fred T. Tyler, chairman, Walter W. Cook, John I. Goodlad, and Herbert W. Schooling.

The book is organized into four sections. Section I contains chapters on biological, social, and educational forces related to the origin and development of variation. Section II is concerned with the presentation of selected evidence about human variability. Section III (the major section) presents descriptions and discussions of various practices intended to provide for individual differences. In Section IV, writers discuss the implications of attempts to provide for variability for teacher education and for the community.

The 17 associated contributors include professors and deans from schools of education, spokesmen from research in the fields of psychology and biological science, and persons working with curriculum in the public schools.

Education for the Professions (Part II) was prepared by committee members John S. Brubacher, R. Freeman Butts, T. R. McConnell, George E. Miller, B. Richard Teare, Jr., and their chairman, G. Lester Anderson.

The content is concerned with examining past and present educational practices of preparation for professional work. The definitions that have been set forth attempting to establish agreement on what a profession is are examined and discussed. Primarily, the volume is devoted to a description of, and a discussion on, education in the fields of law, medicine, engineering, the military, etc., including examination of the structure and organization of professional schools.

The content of this book is also organized into four sections. The first section discusses the background and current status, followed by a section devoted to an examination of case studies in professional education. Section III, "The Moulding Forces," is concerned with the student and the forces influencing him and his education for his chosen profession. The final section is a discussion on the elements of, and a presentation of proposals for, the ideal education for a professional.

OTHER MATERIALS RECEIVED: ELEMENTARY

3R Approach to Phonetics. Joseph N. Heath. Chicago: Henry Regnery Company, 1962. Pp. vii + 56. $1.00. A phonetic reader for kindergarten and first grade.

Science Is Experimenting. Wilbur L. Beauchamp and Glenn O. Blough. Chicago: Scott, Foresman and Company, 1962. Pp. 240. $3.00. Fourth-grade text in the new Basic Science Series. Teacher's Edition also available.

So These Are Fractions. Anita P. Riess and Grace A. Packer. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1962. Pp. 124. $1.76. A workbook designed to be used as a supplement to any arithmetic series. Teacher's Edition available.

Rearing Insects in Schools. R. E. Siverly. Dubuque, Ia.: Wm. C. Brown Company, Publishers, 1962. Pp. viii + 113. $2.75.

Math Workshop for Children; General Guide. Robert W. Wirtz and Morton Botel. Wilmette, Ill.: Encyclopedia Britannica Films, Inc., 1962. Pp. viii + 56. Describes the new teaching program for elementary-school mathematics.

Learning to Read; A Report of a Conference of Reading Experts. Foreword by James B. Conant. Princeton, N.J.: Educational Testing Service, 1962. Pp. iii + 31. $.25.

A Land Full of Freedom. Sunny Eskie. New York: Anti-Defamation League of B'nai B'rith, 1962. Pp. 27.

SECONDARY

Mathematics: Advanced Course. W. W. Elliott, Edward R. C. Miles, and Thomas D. Reynolds. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. 434. $4.96. A new senior-level text for high schools.

Teaching Secondary School Social Studies. James High. New York: John Wiley & Sons, Inc., 1962. Pp. xii + 481. $6.95.

High School Social Studies Perspectives. Erling M. Hunt, Meyer F. Mimkoff, *et al.* Boston: Houghton Mifflin Company, 1962. Pp. ix + 344. $3.75.

Home Economics in the Public Secondary Schools. Beulah I. Coon. U.S. Office of Education Circular No. 661 (OE-83010), 1962. Pp. xiv + 156. Available from U.S. Government Printing Office, Washington 25, D.C. $1.25.

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tridge. Greeley, Colo.: Educational Planning Service, Colorado State College, 1962. Pp. 84. Case studies of 37 small high schools across the nation.

COLLEGE

The Academic Community: An Essay on Organization. John D. Millett. New York: McGraw-Hill Book Company, Inc., 1962. Pp. xi + 265. $5.95.

Questions Freshmen Ask; A Guide for College Girls. Ellen Willis. New York: E. P. Dutton & Co., Inc., 1962. Pp. xi + 178. $3.50.

Administrators in Higher Education: Their Functions and Coordination. Edited by Gerald P. Burns. New York: Harper & Brothers, 1962. Pp. xii + 236. $4.00.

Undergraduate Education in Foreign Affairs. Percy W. Bidwell. New York: King's Crown Press, 1962. Pp. viii + 215. $5.00.

PROGRAMED INSTRUCTION

An Introduction to Programed Instruction. William A. Deterline. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. x + 131. $3.00.

The Learning Process and Programmed Instruction. Edward J. Green. New York: Holt, Rinehart and Winston, Inc., 1962. Pp. xi + 228. $4.00.

Programs, '62; A Guide to Programed Instructional Materials Available to Educators by September 1962. The Center for Programed Instruction, Inc. U.S. Office of Education publication OE 34015. Pp. xxvi + 383. Available from U.S. Government Printing Office, Washington 25, D.C. $1.50.

GENERAL

Modern Philosophies of Education. (Third Edition.) John S. Brubacher. New York: McGraw-Hill Book Company, Inc., 1962. Pp. ix + 373. $6.75.

The Psychology of Adolescence. Dorothy Rogers. New York: Appleton-Century-Crofts, 1962. Pp. vii + 600. $6.00.

Current American Usage. Edited by Margaret M. Bryant. New York: Funk & Wagnalls Company, Inc., 1962. Pp. xxiv + 290. $5.00. A survey of "how Americans say it and write it."

The Preparation of Teachers; An Unstudied Problem in Education. Seymour B. Sarason, Kenneth S. Davidson, and Burton Blatt. New York: John Wiley and Sons, Inc., 1962. Pp. xv + 124. $1.95, paper; $3.95, cloth.

A History of American Education. (Second Edition.) Harry G. Good. New York: The Macmillan Company, 1962. Pp. 610.

Matthew Arnold; Democratic Education. Edited by H. H. Super. Ann Arbor, Mich.: The University of Michigan Press, 1962. Pp. viii + 422. $8.50.

Design for a Study of American Youth. John C. Flanagan, *et al.* Boston: Houghton Mifflin Company, 1962. Pp. 240. $1.95, paper; $4.00, cloth. The first of a series of reports by the staff of Project Talent.

A Practical Guide to Better Concentration. Robert S. Starrett and Melvin Powers. Hollywood, Calif.: Wilshire Book Company, 1962. Pp. 130. $2.00.

The Discovery of Teaching. Cole S. Brembeck. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. xii + 333. $3.95.

Economic Status of Teachers in 1961–62; Teacher Supply and Demand in Public Schools, 1962; and **Salary Schedule Maximum for School Administrators, 1961–62, Urban Districts 30,000 to 99,999 in Population.** Three research reports from the Research Division, National Education Association, 1201 Sixteenth St., NW, Washington 6, D.C. $.75, $1.00, and $.75, respectively. Discounts in quantity.

New Horizons: The Becoming Journey. Washington, D.C.: National Commission on Teacher Education and Professional Standards, NEA, 1962. Pp. vii + 167. $2.00, paper; $3.00, cloth. Report of the 1961 national TEPS conference (The Pennsylvania Conference).

Education in Social and Cultural Perspectives. Harold L. Hodgkinson. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. ix + 243 $3.95.

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THE EDUCATION DIGEST

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Volume XXVIII OCTOBER 1962 Number 2

Diversity Must Be Overcome

Everyone's for Education, But —

FRED M. HECHINGER

In The New York Times Magazine

TODAY, more than in previous years, federal aid to education is winding up as the forgotten, or at least the politically sidetracked, issue.

President Kennedy has emphasized that the issue has been discussed, without effect, for 40 years. Among the early supporters of federal aid was the late Senator Robert A. Taft, a symbol of conservatism, who commented that, "The youth of our country are not only citizens of the states in which they reside but also citizens of the entire nation." The White House Conference on Education, under Eisenhower, voted better than two to one in favor of federal aid. The NEA, in recent years, has been one of the biggest lobbies in Washington. Organized labor also has strongly supported aid to the schools.

With such support, why is pressure from the voters apparently too slight to persuade the House of Representatives to act?

Last October, Abraham A. Ribicoff, then Secretary of Health, Education, and Welfare, read the riot act to the assembled leaders of American colleges and universities. Instead of grass-roots support, he said, there is "a great void." He added that, while all parents want the best education for their children, the American people lacked "commitment" to education.

How just is this charge?

On the surface, everybody wants "an education." More than one-fourth of the nation is now enrolled in school, college, or university. Nearly four million students crowd the higher-education campuses. Except for unskilled labor, a high-school diploma is almost as essential as working papers used to be. A college degree is more common here than a high-school

Fred M. Hechinger is Education Editor, The New York Times. *Reported from* The New York Times Magazine, (*July 22, 1962*), *5, 62–63.*

certificate in many other countries.

The frenzy with which parents press for their offspring's admission to college speaks for itself. Something about education must be compelling if parents subject four-year-old infants to intelligence tests for nursery-school admission.

WHY NO SUPPORT?

Where then is the lack of "commitment"? Why the reluctance to offer taxpayers' support?

Among the many reasons is that underneath the talk about college, there remains a hankering for the days of the selfmade man. The pioneers who made the country great—were they "bookish"? There remains, especially among the older generation—which due to seniority rule is strong in Congress—a suspicion of the newfangled big-education business.

Related closely is the division between vocational training and, from the he-man point of view, the slightly effete idea of general education. Vocational education has long been getting federal subsidies, without much opposition.

There is also a widespread dislike of frills, with everybody considering the things about education he rates least important as an unnecessary waste of money.

The result of all this is fragmentation of aims, interests, and support. And the effect is heightened by institutional fragmentation. Teachers organizations, for example, lost considerable interest in federal-aid proposals the moment aid for teachers' salaries slipped from the bill. And this year, after the Ribicoff lecture had been discussed and its pertinence acknowledged generally, higher-education associations banded together only for the support of higher education.

Passing the academic buck, with colleges blaming schools for low standards and schools complaining that graduate schools turn out incompetent teachers, is an old American game. But it does little to further the impression that education as a whole requires and deserves support.

In some big cities, teachers are organized in dozens of splinter organizations, often fighting each other with greater energy than they expend consolidating the interests of education. In contrast to the professional unity of other groups, such as the American Medical Association, educators find it difficult to make common cause.

The Chairman of the House Committee on Education and Labor, Adam Clayton Powell, Jr., theoretically charged with passage of President Kennedy's program, has again hinted of a revival of the Powell Amendment to prohibit aid to segregated schools. Integration, a vitally important issue, thus fragments the cause even further.

RELIGIOUS DIVISION

The classic example of division, of course, is the religious issue. The issue involves the question of whether federal money should be used to invite even greater fragmentation of interests and institutions. Supporters of aid to parochial schools admittedly want a place in such schools for every Catholic child. They argue that the cost to support a vast separate system is already high and that higher salaries for public-school teachers would drive up the competitive price for lay teachers, who now constitute the majority in many parochial schools.

Those arguing the other side warn that, if federal funds go to Roman Catholic schools, other churches will feel driven to greater stress on parochial schools of their own, widening the national division. At any rate, Mr. Ribicoff reported that his mail advocated: "Do something for parochial schools," or "Don't do anything for parochial schools," but that nobody was writing: "Do something for education."

The lingering issue of "federal control" is troublesome, also. Local and state control of education is considered by extremists a mandate for complete provincial isolationism. Less extreme opposition is based on traditional suspicion of big government, a healthy fear of bureaucracy, and a peculiar myth that state government and local school authorities are somehow less bureaucratic, less political, and are more honest and frugal.

Finally, there is a roadblock less tangible but more basic than any of the others: Education is considered primarily as a means to an end, usually linked to economic or social advancement. This means that the public supports the right to a certificate rather than the process of learning.

This is why Congress appears willing to act in support of higher education but hesitant about aiding elementary and secondary schools.

The apparent theory is that the public schools—no matter how inadequate they may be—are there, and everybody, therefore, is assured of a diploma if he so desires. But across the country constituents are up in arms because there may not be a place in college for their children.

PIECEMEAL HELP

The danger of this lack of public concern for education *as a whole* is that aid comes, at best, in piecemeal fashion, without a cohesive plan. It goes to those aspects of education, which, for the moment, have the loudest voice through the most effective lobby.

Even the highly successful National Defense Education Act has suffered by being able to gain support only for the "crisis" subjects of the moment—science, mathematics, and foreign languages—instead of building up strength throughout the long-neglected curriculum. In fact, the schools which needed help most could not really make effective use of NDEA aid. A truly poor and neglected school, without a science or foreign-language teacher, has little to gain from new science equipment or an electronic language laboratory.

It is no secret that, in spite of

the original good purpose, aid to "federally-impacted" areas has in places become no more than pork-barrel expenditure. While boom towns get aid, the truly distressed regions, both in rural sections and in city slums, go without support.

Aid to the schools, in an answer to Russia's sputniks, has actually been dramatically successful in the past four years. But it is already evident that the panic infusion of federal dollars has revived the high schools without having similar influence on the rest of the system. The elementary schools are still lagging and the colleges find it increasingly difficult to keep up.

THE ANSWERS

What, then, are the answers?

President Kennedy has urged Congress to take a look at the entire panorama of education: basic support for the elementary and high schools, special aid for the support of quality instruction, readying the colleges and universities for increased enrolment, and wiping out pockets of complete lack of education and remnants of adult illiteracy.

If these various tasks are to be achieved piecemeal, at the mercy of shifting pressures and fluctuating public support, the result will be not only less effective but vastly more expensive. Emergency crash programs always cost more. Next year's inflation will eat up more of the school funds. Yet there is little hope for any cohesive action unless the public can be made conscious of, and interested in, the essence of education rather than the trappings.

Teachers, college presidents, and school-board members ought to realize that they must steer the same boat together instead of rushing for separate life preservers. Congress will not listen to occasional academic voices, no matter how distinguished. But if, for example, the majority of the nation's school-board members were to support aid to education, the effect might be quite different. Yet, at this year's national convention of board members, a pool of the membership showed the majority still opposed to federal aid. The well-to-do districts are outvoting the needy in such polls.

There are more than 150,000 such board members, most of them highly influential and predominantly conservative members of the community. To legislators, they are truly representative of the grass roots. They, together with parents groups, teachers organizations, university spokesmen, and civic groups, would carry considerable weight. At present there are only ineffective splinter groups, while the opposition is solidly organized.

In the final analysis, the problem is to make the pieces of the jigsaw puzzle fall into a meaningful picture. The essential element is the people's ability to see the entire picture, judge the nation's needs, and come to grips with their own and their children's future. Only if that exists will the forces of the grass roots coalesce to fill the "great void." ●

How to Cope
with Attacks from

The Fanatic Fringe

In School Management

IN almost every school district, there is a small, loud group of persons more interested in attacking the schools than helping them. They make up the "fanatic fringe," an element not easily defined but one that can be easily identified.

It may take the form of a religious sect, a semimilitary organization, a "moral crusade," a low-tax element, or a back-to-basic-education wave. It may be local in origin or part of a national organization.

Whatever the form, fanatic fringe groups can be recognized by an unswerving devotion to a single narrow goal, little regard for facts, and a lack of concern over all "extraneous" matters. Some, for example, will find communism an issue in any discussion, whether it's federal aid, school books, teaching methods, or the changeability of the weather.

The most publicized attacks on schools recently have come from a small group of organizations representing the extreme right wing of our nation's political spectrum. One, the John Birch Society, openly proclaims its plan to infiltrate the public schools by capturing local PTA's and school boards. Another, Harding College in Searcy, Ark., has stated its intention to put its material into every public school.

Attorney General Stanley Mosk of California proposes several ways to test whether a group is extremist in the sense of being damaging to American attitudes and practices:

Does the organization attack schools and churches with blanket charges? Does it attack other traditional American institutions with wild and unsupported charges? Does it label everyone with whom it disagrees politically as un-American or subversive? Does it try to rewrite modern history by blaming American statesmen for wars, communism, depressions, etc. Does it resort to crude pressure tactics such as anonymous telephone calls and letter campaigns?

The use of these gages will help to identify groups on the "fanatic fringe." But identifying the groups and withstanding their attacks are two different matters.

School Management editors recently interviewed several schoolmen experienced in dealing with such attacks. They were Norman Scharer, superintendent in Santa Barbara, California, and an early

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Reported from School Management, *VI (May 1962), 72–76, 140–49.*

target of the John Birch Society; Kenneth Peters, superintendent in Beverly Hills, who served on a county-wide committee to study such attacks; and Richard B. Kennan, executive secretary of the NEA's Commission on Professional Rights and Responsibilities, who is often called on to aid the districts undergoing attack. The following are some of the questions asked and some of the responses:

SIGNS OF ATTACK

QUESTION: *How can a district anticipate an attack? Are there signs, in advance, of an impending attack?*

Peters: Yes. The temperature in other communities is one thing to watch. If there is an attack on schools in Oklahoma City or San Diego, we expect it to reach Beverly Hills in a week, two weeks, perhaps a month. There are signs within your own district. People you've never seen before will start attending board meetings. Principals will get an unusual number of phone calls asking about books or teachers. Citizens will come to the schools and spend hours looking over curriculum materials. These are things we encourage. But when there is a sudden upsurge of this activity, you can be pretty sure something is up.

Scharer: Letters to the editor of the local paper are a good indicator, as are speakers who are brought into the community. Sometimes literature will be circulated in advance. As superintendents, we need to keep our hands always on the pulse of the community. Some of us forget this if we are not seeking to pass a bond issue, teachers' pay raise, or to build a swimming pool. An attack on the schools should never come as a surprise.

QUESTION: *Let's assume that a superintendent does detect these signs of impending attack. Is that the time to brief your staff on district policy?*

Scharer: When anything out of the ordinary comes up, a superintendent should call his people together to discuss it. Now, when something like an unreasoned attack is in the wind, it's the obligation of the superintendent to take the lead. He must be solid in his own thinking and his reactions. He must make direct suggestions and recommendations to the board and he must keep the board and his staff fully informed on developments. If the superintendent doesn't prove at this time that he's a leader, he might as well quit.

Peters: It's never too late to talk to your staff, to mend your fences. But it's better if you have a continuing program that allows you to talk to your staff and to your public—allows you to find out what they're thinking and what their problems are. For example, every month I meet informally with leaders of our PTA's. We just sit around and talk about what is on their minds. I learn about things that are happening in the community—about groups of parents planning to take one step or another. As a result, I am prepared, and the district doesn't get caught off guard.

QUESTION: *Suppose an attack is made through some school-connected agency, such as the PTA?*

Peters: If your lines of communication are open, if you have a good relationship with parents in general, and if your program is worth defending, this will guarantee that inroads aren't going to be made by extreme groups. Somebody is not going to be able to come in and take over.

Kennan: It's most important that your PTA's be convinced that you have a good program. If you must suddenly claim that you do a good job of teaching American History because somebody's attacking you, you're in trouble. Your citizens should have known that before the attack was ever launched.

QUESTION: *What happens when someone comes to a PTA meeting, says, "I think we should stop teaching about Unesco in the schools," and introduces a resolution to this effect?*

Scharer: This is a difficult problem, but it can be handled. In some cases, the PTA leader will properly suggest that a group be formed to study the problem. In other cases, the principal or other representative of the administration attending the meeting should get up and explain the district policy on adoption of materials. There are procedures for handling this type of request. Stick to procedures and there should be no problem.

QUESTION: *What can a district do when a group demands that its literature be put in the schools?*

Scharer: I see no reason why we shouldn't cooperate with the American Legion or the Veterans of Foreign Wars when they want to give us a pamphlet on flag etiquette. I see no reason why we shouldn't cooperate with the Daughters of the American Revolution when they want to give us facsimiles of the Declaration of Independence.

Kennan: This is all right, but what do you do when an organization gives you a list of books without any indication of what's wrong with them and says, "These are un-American. You've got to get them out of the schools"?

Peters: Again, you must go back to using procedures. We have a committee that takes all the material submitted and evaluates it. Subject specialists, administration personnel, and general curriculum people serve on the committee. The committee makes a recommendation to the superintendent, who reviews it and takes it to the board. Normally, the board is notified of the committee's recommendation at one meeting but does not adopt the material until the next meeting, permitting time and opportunity for anyone to submit an objection.

If an objection is made, again there is a procedure. The objection must be in writing from a citizen in the community stating specifically what the objection is. A committee of lay and professional people reviews the objection and submits a report to the board. The board has the final legal responsibility to adopt or not to adopt.

QUESTION: *What is the obligation of the superintendent and the schoolboard to protect the teacher in a case where he is directly attacked?*

Scharer: I don't think the superintendent has any choice. If you're sure of the integrity, the caliber, the background of the teacher, you've got to defend him. The superintendent and the board have an obligation to do so.

Peters: I think the superintendent has to carry the ball and pray that he has a strong and intelligent board of education to back him up. I don't think any superintendent can ever allow a situation where a teacher is made a scapegoat in a situation such as this.

QUESTION: *In one recent schoolboard election, one candidate, a member of an extremist group, based his whole campaign around an attack on one teacher. What does a superintendent do in a situation like that?*

Kennan: I think the teacher associations, both local and statewide, have an obligation to protect their members. They must shoulder some of the responsibility along with the administration and the board. Many of them have been doing a good job along these lines.

Peters: The superintendent certainly has to refute unjust charges against personnel whether a campaign is underway or not.

Scharer: I don't think you can enter campaigns, but I think you can contribute facts about your program and personnel. Joe Doakes may be going off on a tangent about finance of the district's schools, but if all the other candidates have the facts in hand, he's going to have a difficult time getting his point across.

Kennan: I don't agree completely. If the situation is serious enough so that election of an extremist to the board of education will be damaging to the school system, I think that either the administrator or the local teacher association does have a responsibility to point out the facts. I believe there are times when they are going to have to take a position in an election.

QUESTION: *What should a good school board do when it finds itself, its schools, or its superintendent under attack? What should individual members do?*

Scharer: I think that the key elements in defending your district from the attacks of extremists are: set policies for handling controversial material, a strong board that is willing to back up its administration and teachers in time of attack, and knowledge of the tactics and objectives of these groups. It always helps if, as in Santa Barbara, you have news media that are concerned with American ideals and education.

Kennan: And a strong superintendent—a man who has given leadership in developing a quality school program and who is willing to stick to his guns to defend it. •

Research of the Last Three Years

Development and Application of Tests of General Mental Ability

NORMAN E. WALLEN

In Review of Educational Research

ALTHOUGH tests which purport to provide an over-all index of intellectual skills appear to be becoming more objectionable to many researchers, on the grounds that they lack threoretical bases or that they fail to do justice to all aspects of human intellect, they continue to demonstrate great usefulness in many applied and research activities.

During the last three years, the largest number of studies pertained to predictive validity and analysis of test intercorrelations. There appeared to be an increase in studies contributing to knowledge of construct validity through the study of predicted relationships to such variables as ease of learning and cultural characteristics; this trend is encouraging.

THE STABILITY PROBLEM

Reliability.—When reliability is defined as the attenuation of measurement by short-term fluctuation in individual characteristics, the tests discussed here have, over the years, demonstrated high reliability. Studies assessing the effect of long-term changes in individuals—the stability problem—have been less common, however.

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One team reported on the follow-up of about 100 subjects from the 1937 Stanford-Binet standardization sample. At initial testing, the subjects ranged from two to five-and-a-half years of age. Correlation with scores obtained 10 years later was .65; 25 years later, .59. Correlation between scores in adolescence and 15 years later was .85. Considering the low-predictive value of tests given subjects below age five, these data are impressive. They are consistent with previous studies and demonstrate that a preschool Binet IQ does predict subsequent intellectual functioning as measured by the same test.

At the same time, the correlations demonstrated that IQ is not absolutely constant. Findings in these studies also added to the accumulating evidence that intellectual improvement continues into adulthood.

Predictive Validity.—A substantial number of studies reported relationships between academic performance in a variety of content areas and group tests, which usually had substantial "educational loading." In general, the correlations reported are consistent with previous studies, the range being approximately .30 to .60, with prediction best in the more academic studies. Although of considerable value to persons concerned with prediction in these areas, these studies, in the reviewer's opinion, contributed little to general knowledge. An exception is a study by Holland (1959), which found, with a sample of select National Merit Scholarship winners, that the *College Entrance Examination Board Scholastic Aptitude Test* scores, verbal and mathematical, had generally low (1.7 or below) predictive ability for college grades.

Ability to Learn.—Despite the common statement that intelligence tests do not predict ability to learn, the evidence that they do continues to accumulate—though not without exception. The frequent reference to apparently negative results of early studies illustrates difficulties that arise from lack of research sophistication; these studies abound in unreliable measures, regression effects attributable to errors of measurement, lack of variability, and lack of specificity of the learning task.

MENTAL AGE OR IQ

Whether prediction is better based on mental age or IQ remains to be seen. Most studies have not systematically varied all three relavant variables (chronological age, mental age, and IQ). Relationships tend to be found with whichever two are permitted to vary.

A particularly interesting study was that of Berkson and Cantor (1960), which employed a sophisticated design to test the extent of symbolic mediation. Each child learned associations between numbers and pictures and then between the same pictures and colors. The mediation effect was measured by a test of number-to-color association. The higher-IQ children (as determined by the *Kuhlman-Finch Tests*) learned the lists significantly faster, but did not show the greater mediation effect that was expected.

This finding is difficult to reconcile with that of O'Connor and Hermelin (1959), who found both faster learning and greater transfer in normal children than in retarded children. An interesting point in this study is that, since the transfer was negative (i.e., it interfered with learning), the retarded performed better on this aspect of the test because they did not transfer. Further, it was demonstrated that the poorer performance of the normals resulted from their verbalizing the rule; the retarded showed as much negative transfer after they also were finally able to verbalize the rule.

Studies relating test performance to various aspects of learning continued to be plagued with the problem of adequate measures of learning. This research area deserves the increasing attention it has been getting.

Ability and Capacity.—An issue of great importance is the distinction between present ability and capacity. The use of an intelligence test score to indicate an individual's over-all functioning on a variety of intellectual tasks appears justified, although, even here, the differences among tests on such dimensions as "educational loading" must be kept in mind. Further, such scores may be legitimately used to predict future performance in a variety of situations.

When the question of intellectual capacity is raised, however, what is asked for is an estimate of the individual's intellectual functioning in the future under optimal conditions, which are usually undefined. Although answers to such questions must be given often in practical situations, it is widely recognized that they rest on little scientific support.

The most common approach to the problems of better assessments of capacity than the usual verbal-type test has been through use of performance tasks, as exemplified by the *WAIS* performance tests and the *Leiter International Performance Scale*, or nonverbal tasks, as exemplified by the nonverbal forms of the *Lorge-Thorndike Intelligence Tests* and Raven's *Progressive Matrices*. Such tests are intended to be as little dependent as possible on specific experiences, particularly of a *schooling* nature. But the type of research needed has not been done. It is not known whether children whose performance scores are considerably higher than their verbal scores profit more from remedial or therapeutic experience than children with comparable verbal scores whose performance scores are not deviant. It is known that in the absence of special treatment, verbal scores predict better; but this is a different question.

In the absence of direct evidence, present related evidence is contradictory. Studies of other cultures consistently showed either no difference or a poorer performance by "culturally deprived" subjects than by control subjects on the nonverbal, as compared with the verbal, tests. On the other hand, a series of studies by Levinson (1960) supported his position that a particularly stimulating verbal environment has a cumulative effect of raising verbal skills above performance skills.

ENVIRONMENTAL VARIABLES

Environmental Variables Affecting Intelligence.—Continued study of the influence of environmental variables on test performance is closely related to the stability of score and the search for measures of capacity. Burt (1961) continued to defend his position that environmental factors contribute relatively little; Anastasi (1958) argued for their importance. The issue is not yet settled and continues despite repeated efforts to brand it a pseudoproblem or an irrelevancy. A number of recent studies dealt with variables which seemed to make some difference, although it was not clear how much. Hurley (1959) cited two studies that found that children of domineering parents are likely to have lowered performance on intelligence tests, although one of the studies found that such home influence was beneficial to achievement performance.

TEST VARIABLES

Variables affecting test performance.—A number of variables affecting test performance were investigated, including: subject cooperativeness, knowledge of results, ego-involving instructions, success, effect of examiners, test anxiety, previous educational experience, coaching, and speed.

Masling (1959) found significantly higher scores on three *WAIS* subtests when the testee assumed the role of a congenial, cooperative person than when she was aloof and hostile. The magnitude of the differences, however, appeared slight in view of the extreme roles played. Nichols (1959) found that immediate knowledge of results given to college students had no effect on subsequent *WAIS* scores, nor did ego-involving instructions. He also found no significant differences among 11 examiners. The importance of reducing the effects of speed was shown by Knapp (1960), who found that on the Cattell *Culture-Free Test* shorter time limits lowered performance of both native U.S. and Mexican subjects, having a greater effect on the latter.

New and revised tests.—From a practical point, the most important occurrence during the review period was probably the revision of the *Stanford-Binet Scale*, described by Terman and Merrill (1960). Principal changes were: incorporating into one form the most valid items (based on total score correlation) from the previous Form L and Form M; adjusting the placement and scoring of items for changes in difficulty since 1937; increasing the extent of behavior sampled within many items; and changing to the deviation IQ. The manual is somewhat lacking in clarity.

Two short tests of verbal ability were reported by Francesco (1960) and Borgatta and Corsini (1960), and a new performance test was reported by Kahn (1960). There were other new tests which had particular application to disabled children.

Recommendations.—The reviewer would like to see the balance of research shift from interest correlation and simple predictive validity to refinement of tests based on correlations with more useful outside criterions.

For example, one would like to know which of the competing factor analyses of the Weschler tests provides factor scores that will best predict such criterions as problems solving in the classroom and improvement with tutoring, or other criterions of theoretical or practical importance. ●

Why Are Test Results Not Used?

After Testing, What?

HELEN M. ROBINSON

In The Elementary School Journal

STANDARDIZED tests are used widely in schools today, and a pertinent question may be raised about the use of the results. Too frequently, tests are given, scored, and filed.

In some schools, the tests are given by test directors, and no reports of the results are made to classroom teachers. Theoretically, the test files may be available but very often they are relatively inaccessible. Only a teacher or counselor confronted with a serious problem with a pupil may refer to the test scores. In such schools, the cost of the tests and the time of students and teachers are wasted. It would be more economical to test the few students whose problems suggest the need for tests.

In other schools, tests are given and scored by teachers and the results are recorded in a cumulative folder in the classroom. The results are accessible but, in many schools, seldom used.

In still other schools the total scores of standardized reading tests are used to determine promotion, to select the appropriate level of a basal reader, and to determine the final mark on a report card.

Standardized tests are used most appropriately when they are understood and seen as part of the instructional program. The subscores of individuals are examined with care and often with the recognition that they may not be so dependable as the total score.

An astute teacher carefully examines the performance of pupils on different items of the test. Recognizing fully that the items are only samples, he obtains clues to guide him in exploring with a view to correcting particular weaknesses exhibited.

RESULTS NOT USED

Why are test results not used? A major reason is that many teachers have little understanding of standardized tests. Teachers without adequate preparation in testing may see the tests as an administrative imposition. They may view the grade or percentile total scores with alarm if their pupils' scores are lower than average, or with pleasure and/or complacency if above

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average. Subtest scores are seldom related to needs of the class or to individuals. Item analysis to discover types of strengths and weaknesses are rarely made.

A second reason why standardized-test results are not used is inherent in the test-selection method. For example, one school used tests recommended by adjacent schools. Another chose tests because scoring service came with the package. One school procured tests because the personnel liked the salesman.

Third, tests may be chosen because they are easy to administer and score, rather than because they are closely related to the curriculum of a given school.

The implications are clear. If teachers are to use the results of tests, a systematic selection plan should be adopted. Teachers should have some voice in selecting tests if the results are to be most helpful.

MISUSING TEST RESULTS

How are test results misused? Administrators who rate teachers solely on the basis of the standardized test scores of their pupils are misusing tests. One teacher may have a very able class, while another teacher may have a class that is extremely limited in ability. Even when the amount of gain made during the year is considered, the good teacher of a slow-learning group usually produces gains below the average.

Another common misuse of test results is complete reliance on the score of a single test. Teachers may give final grades on the basis of the achievement-test score alone, disregarding the quality of daily work done by students. Manuals accompanying tests explain carefully that there is a margin of error, especially for individual scores alone.

Many teachers, administrators, and public critics misuse test norms. The norm of a test is the midpoint of the population to which the test is administered for standardization. For example, if a reading test is given to several thousand students entering ninth grade, the middle score is the norm for that group. By the very nature of the procedure, one can expect a so-called typical class to earn scores such that half will score at or above the norm and the other half at or below the norm. Newspaper and magazine writers make headlines with statements that more than a third of the students entering a given high school read below the expected level, implying that the norm is the minimum expectancy.

In selecting textbooks, teachers are frequently unaware of the fact that the norm is midpoint rather than the low-point of the class. This may explain why many books are chosen at a level that is too difficult for the majority of class members.

The assumption that all students whose total grade scores are equivalent or have identical or similar instructional needs is unfounded. One pupil may attain the score by covering the test rapidly, often relying on guessing. Another may read slowly and thoughtfully, rechecking his answers for accuracy. The instructional plans for these two pupils should differ. Thus, test results are misused if it is assumed that specific needs are revealed by total scores.

Like many other practices that are misunderstood, the use of standardized tests has been discounted in some schools. Such a step ignores the values of these tests and also removes the necessity for understanding the results and using them to improve instruction.

To argue that standardized tests should be abolished because they are not used correctly is, in the opinion of Henry Chauncey, president of the Educational Testing Service, "the same as saying that all automobiles should be abolished because some are poorly built or driven by reckless drivers—or that all books should be banned because some are poorly written or influence readers in undesirable ways."

Increasingly, administrators are arranging for teachers to help choose the best test for the curriculum and for the children in a specific school. The teachers' deliberations are guided by someone who is familiar with the characteristics of effective tests. Futhermore, all teachers are given inservice training to administer the tests properly, using exact directions and precise timing if called for.

If the tests are scored by teachers, it is essential that they know why the scoring must follow the key as well as how to score the test. When the scores are entered in their proper places, assembled by classes and schools, only the first step has been taken. This is the time to provide inservice training to use the results wisely to improve instructional practices.

After testing, what? Improvement of instructon, of course. •

What We Learn from Tests

- *Geography:* Only one-fourth of the world is land; America is lucky to be mostly on this one-fourth dry part. . . . More people live in Rhode Island than is possible. . . It used to be thought that we had 48 states in America. Then someone counted again and there was 50.

- *History:* The Constitution guarantees to each state a republican form of government, which means that no state may have a Democrat for governor. . . The important thing Teddy Roosevelt did was to kill a bull moose. . . . The state of Georgia was founded by people who had been executed.

- *Science:* Vacations prevent smallpox.—Boners from *Science Review, NEA Journal, The Christian Science Monitor,* and *The Texas Outlook.*

1962

A Survey Poll Reveals

Most Teachers Will Not Join Unions, Administrators Believe—and Hope

In The Nation's Schools

A POLL conducted by editors of *The Nation's Schools,* seeking to determine how administrators view the possibility of teachers unions eventually organizing a majority of the public-school teachers, reveals that 63 percent of the superintendents responding to the questionnaire do not believe that unionization will come about. Their comments often indicated that this is not so much a prediction as a hope on their part.

The opinion poll, based on a 4 percent proportional sampling of 16,000 administrators brought a 42 percent response. Thirty-five percent of the administrators responding held the opinion that union organization would come about. Two percent indicated they had no opinion.

The majority who answered in the negative were concerned with the professional status of the teacher. All but one seemed convinced that "professionalism" and "unionism" are incompatible. But respondents differed as to the extent and nature of professionalism among teachers.

One Illinois administrator maintained that, "Teaching is, and must remain, a profession." Another stated, "The present trend toward thinking of teaching as a job will reverse itself, and teachers will realize once again that teaching is a profession."

Those who believed unionization inevitable disagreed generally. A South Dakota administrator said, "Professionalism of teachers is an acceptable dream. It is not realistic, however."

A Texas administrator contended, "Teachers will begin to believe that in order for them to achieve their rightful professional position in our society (both as to salary and social status) it will be necessary to organize to this extent."

A South Dakota administrator predicted a downfall of teachers unions while expressing favor of unionization in principle. He said, "Although I am of the opinion that teachers unions would be the most effective bargaining medium, I am afraid that teachers will re-

Reported from The Nation's Schools, *LXIX* (*May 1962*), *81.*

main confused as to the real issues involved and keep on floundering indefinitely. Too, they are told that [union procedure] is 'unprofessional,' even though wages and living conditions remain inadequate. To me this is nonsense."

An administrator in California had quite another idea: "The drive for the almighty dollar seems to overshadow the desire for professional status."

The 35 percent predicting eventual unionization stressed most frequently the need for higher salaries, better working conditions, and other benefits. A respondent from Wisconsin said, "Eventually it will become almost essential that teacher salaries become somewhat more standardized in order that rural areas can compete on the teacher market with the urban areas."

A Michigan administrator said, "Teachers will be forced to follow industry in order to get wages enough to support themselves and families."

Some administrators who predicted that teachers would never organize also recognized a need for salary improvement, but maintained that boards of education and proper legislation were sufficient to overcome this problem. Others disagreed, expressing considerable dissatisfaction and distrust of the public, the government, boards of education, and other teacher associations. A New Jersey schoolman charged, "The . . . NEA has failed to develop adequate standards for entrance and continuance in the profession, has failed to stand up to our critics effectively, and has actually assisted the profession's decline in the public eye. This period is a time that calls for vigorous, effective leadership. . . . The unions are already doing this in many large cities."

Some respondents thought union tactics unsavory enough to discourage most teachers.

"I don't want any part of a union where people like James Hoffa might get their hands in the pie" and "I believe that there still is a great deal of professional ethics permeating the teachers' ranks" were among the comments.

An Oregon administrator placed his hopes in teacher groups, saying, "They're becoming stronger all the time. Unionism doesn't appeal to the majority of teachers as long as the associations meet teacher demands."

Some administrators pointed out that rural areas were unlikely to organize. Teachers were considered too individualistic to organize in the opinion of others, and a Minnesota administrator stated, "Teachers unions are concerned almost exclusively with teacher welfare; teachers as a whole are not as concerned with this."

A schoolman from the Pacific Northwest offered this idea: "A true professional organization does not bargain in the way that many of our labor unions do. However, it might help labor unions if we did join them—and give them a new point of view." ●

An Explosive Period Lies Ahead

Recommendations for Educational Television

In Educational Television: The Next Ten Years

IN less than 10 years, educational television has reached a point where more than 60 broadcasting stations are now on the air, serving schools by day and homes by night. Audiences are no longer mere handfuls. In cities where well-established stations operate, nearly one out of four adults is a regular viewer. School children who have received some teaching by television now number in the millions.

Apparently, an even more explosive period of growth lies ahead. At least 40 new stations are in preparation and several hundred educational institutions are now making plans for extending the use of closed-circuit television. An educational communications satellite, instantaneously relaying programs for national and hemispheric coverage, is a foreseeable reality.

The growth and impact of educational television motivated the Educational Media Study Panel (established in 1960 as an advisory group to the Commissioner and the U.S. Office of Education) to concentrate initial attention on television. As a result of discussions, reports, and hearings, a number of questions were raised and certain suggestions and conclusions were drawn.

Reported from Educational Television: The Next Ten Years, *published by the Institute for Communication Research, Stanford University, California (1962), 1–13.*

First, what is the growth of educational television likely to be? The number of stations has increased steadily and the rate shows no sign of slackening. Recent surveys show that audiences for these stations have increased substantially in the last two years. More and more schools and colleges indicate that instructional television is part of their future plans. Many school officials believe that, 10 years from now, television will carry some part of the teaching of the great majority of school children in this nation, and that it will be used increasingly for direct instruction in large colleges and universities. It is also expected that television will make available at home, to students of any age, a large part of the college curriculum. Thus education may become easily available at any time of life.

A medium with so much potential, with so many needs to meet, and so many plans being made for it, is likely to continue to grow for a long period of time.

Second, how can programs be improved? Distinguished programing costs money. At the present time, the total program cost of educational stations nationwide is about equivalent to the cost of one network series on commercial television. The total annual cost budget of most educational stations is far less than the cost of a single commercial "spectacular."

However, money alone will not necessarily produce outstanding and distinguished programs. Talented writers, producers, performers, and program managers, and a clear and viable policy as to what audience is being served are additional requirements. Better financing will help to bring in talent, but the policy is relatively independent of financing, excepting that money is required to implement any policy.

The present audience of educational television, which includes a large proportion of highly educated persons influential in forming public opinion and determining a community's cultural tone, is a tremendously potent group of people. However, educational television, as it grows in resources and skill, can appeal increasingly to larger audiences. The challenge to educational television is to develop in its programs the skill in writing and production, and the understanding of its audience, required to furnish cultural and intellectual stimulation to a very high proportion of the total audience.

In seeking to stimulate thought and discussion at a high level among its viewers, educational television has a great potential ally in the existing structure of community learning activities—organized discussion groups, study groups, vocational interest groups, and the like. If educational television can create a series of programs to feed and stimulate these groups, it will be in a position to supplement its direct effects with active learning experience, to enrich the work of existing groups, and to increase the impact of its broadcasts.

EFFECTIVE USE

Then, how can television contribute most to education? The spectrum of television instructional uses is not completely known. It is clear that it can do some teaching acts superlatively well. It can let a large class look into a microscope at one time, or watch surgical procedures from close at hand. It can share great teaching and great demonstrations. But television cannot conduct a seminar discussion efficiently, and it cannot give specific and direct personal help.

Experience indicates that the most effective uses have been where television has been combined carefully with other activities in a total learning situation; and where students were strongly motivated to learn from it. This challenges educators to make a broad review and restructuring of what happens in the classroom.

The possibility of being able to arrive at a new and more efficient distribution of student activities and teacher responsibilities, in which talents and time of both will be used more efficiently, is the great hope for a "breakthrough" that instructional television holds. Now that the amount of learning taking place in our school has taken on new importance, it is fortunate that these new tools are available to encourage a fundamental review of classroom practices and procedures.

How can the strengths in educational television be shared? Many practices do not take advantage of the fact that television can serve the nation as a whole. The shape of the future in educational television clearly includes a national and perhaps several regional centers for the exchange and evaluation of teaching materials. It also includes a gradual and increasing interconnection of educational broadcasting stations. Until we do have a nationwide network of stations, a national system of production, evaluation, and exchange of instructional materials, educational television will not be able to work at its full strength for the public good.

TRAINING NEEDED

What specially trained manpower is needed? A most urgent need, for both commercial or noncommercial television, is for a pool of creative talent (writers, directors, performers, technicians). To the extent of financial ability, educational television should lead in seeking out such persons, encouraging the training of more, and giving them opportunity to use their talents in the medium. If its financial basis can be strengthened so as to provide for higher salaries, educational television will be far better equipped to offer the quality of program service that is necessary to attain its objectives.

In the schools, more and more teachers will need to become familiar with the skills of teaching on and/or with television. This will require in-service training programs, summer courses, workshops, and new opportunities for gaining experience with television. Numerically, the greatest need in the schools will be for a large number of classroom teachers able to weave television into activities and make it a part of the learning experience. Colleges and universities can be of great help by establishing programs for developing this skill in teachers.

Now, how can adequate financing be provided? Compared to the present cost of educational television, the bill for the kind of service needed will be large. In the past, operating funds have come, in various proportions, from five sources: membership contributions from the public; contributions from business, industry, and civic groups; foundation grants; contracts for production of programs; tax funds from school systems, universities, colleges, and other educational groups.

Continuing support of all these sources is most important. However, financing is now the chief factor limiting the quality and amount of service that can be provided. Unless the amount of financial support can be increased substantially, the bright promise of educational television cannot be fulfilled.

What channel allocations will educational television need? Most U.S. television is in the VHF (very high frequency) band. VHF channels are in short supply and in many cities there is no VHF channel for education. There is a great deal of room available in the UHF (ultra high frequency) band, which offers more channels than VHF but smaller areas of coverage.

If the number of educational stations doubles in 10 years, the problem of finding and allocating channels will be very complex. The nature and magnitude of anticipated future needs should be made known to the Federal Communications Commission, and recommendations should concern full use and reservation of education's fair share of *all* spectrum resources.

Based on the facts and findings of the study, the Educational Media Panel believes that educational television has a unique and significant role to play in both the extension and improvement of the educational and cultural environment necessary to the fulfillment of our national interests. Therefore, the Panel offers the following recommendations to the Commissioner and the Office of Education, for consideration in relation to national policy:

We recommend that the federal government take the steps necessary to assure for every American the opportunity to receive ETV signals; and more specifically to reserve those parts and amounts of the broadcast spectrum and related electronic resources necessary to guarantee nationwide transmission and reception of the full range of educational television services.

We recommend public as well as private support of a new, vigorous, and coordinated national effort on the part of American schools, colleges, communities, government agencies, and other interested groups to encourage the production of more and better educational television programs addressed to the needs of our time.

We recommend a continuing nationwide program of research and evaluation which will help to identify and increase both the worth and efficiency of educational television.

We recommend that a nationwide talent search and training effort be launched by schools, colleges, and stations to create and keep in full supply a reservoir of personnel qualified to serve in all "departments" of educational television.

We recommend that financial support for educational television be provided from both public and private funds at the local, state, and national levels, to ensure that the necessary new stations may be built, and that the facilities may be operated and programed to the fullest degree in the national interest. ●

A Fragmentary View?

Is Education News?

GLORIA DAPPER and

BARBARA CARTER

In Saturday Review

TO depend on local newspapers for information on education is to have virtually no information or perspective on the major national issues in education and only the most fragmentary view of the local school picture.

This is the opinion formed after a month of clipping every story relating to education appearing in 19 well-known "typical" community newspapers and analyzing the fare. The papers selected for study were geographically representative and all had education reporters assigned full time to education. The study was conducted during the month of September, 1961.

We arrived at one judgment early: Overwhelmed by the volume of sport news, we agreed that school and collegiate sports are being magnificently reported to the American reading public.

In general—but with notable exceptions—the local newspaper, in education reporting, concentrates on student extracurricular activities, teacher appointments and activities, school finance and buildings, scholarships, honors and awards, the school bus, PTA notes, and a variety of news about colleges.

The quantity of stories is heartening, but the news they tell is, by and large, not substantive.

A prime example is the category of teacher appointments and activities. Story after story reports that a school teacher or college professor is scheduled to speak at a meeting. Rarely is the reader informed about what the speaker had to say.

There is almost a national policy that teachers are news solely because of their profession. The local paper, therefore, keeps a diary of teacher movements, including trips to conventions, summer vacations, and other comings and goings.

But what our teachers think, what their preparation was for teaching in the local schools, how

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they stand on national issues or even local educational matters is ordinarily left to the imagination.

As expected, school and college enrolments were a big story last September. The numbers themselves appeared to be fascinating to the writers. But the reader was rarely told what the local numbers meant. Seldom was the reader made aware of implications and significances of the numbers to the local situation.

Many clippings classified as educational television stories could be found. But most of them simply listed programs to be telecast. There were few stories on the impact of television on education or on the teaching profession.

Most newspapers mentioned educational goals by way of reporting speeches, usually by a visiting fireman from a national organization, college, or foundation. The brief coverage did not reveal what the speeches were like but the essence that got into print is that education is a good thing and everyone should have more of it, particularly since we're in a Cold War.

Colleges are news, but what's going on in colleges is not making the pages of the local newspaper. Enrolments, freshmen on campus the first day, industry and foundation grants, and several sororities and fraternities that disavowed prejudicial standards for membership were big news last September.

But the college program was hardly ever discussed. If curricular experiments were being conducted, they were not being mentioned. If the purposes of college are changing because of the deluge, it was not reported. Locally, the story is one of numbers and buildings and money.

Vocational education in the public schools is no longer a popular subject, if the dearth of news about it is any indication. There were a few stories with pictures showing boys working on cars, or girls in a model beauty shop, but nothing about the crucial role of vocational education.

When it came to reporting about such subjects as civil liberties or academic freedom, the papers, for the most part, told the story factually with no attempts at editorial analysis. Several papers reported that new courses on patriotism were being taught here and there, but there was no background information on whether this was a national trend. (It is.)

These generalizations can be supported by 95 percent of the clippings. But the remaining 5 percent refute any argument that it's impossible to cover education well. The good examples—many from the same papers that provided the bad examples—exhibit imaginative, informed reporting that often excels that in any other department of the paper.

GOOD EXAMPLES

For example, the *Minneapolis Morning Tribune* did far more than report that enrolment at the University of Minnesota reached

30,000. Education editor Richard Kleeman and his staff reporters went to the campus and reported the story's significance in a dozen ways. They made the readers aware of the problems of scheduling classrooms for the huge enrolment. They reported that shortage of space would force many freshmen to take freshman English in their sophomore year. There were interview stories with students who couldn't get into courses because of the crush, stories telling which courses were most crowded—science—and interviews with professors as Kleeman attempted to find and report the "why" of these matters to his readers.

The good education reporters don't avoid the tough subjects. Max Price, *Denver Post* staff writer, did a thoughtful piece on accreditation for Colorado public schools, presenting this difficult subject in a readable and thorough manner.

The *Nashville Tennessean's* Eugene Dietz looked behind enrolment figures to find meaning there. The result was a countywide story on steps being taken to alleviate overcrowding. And in the midst of the college bulge news, he added a story on the great numbers of Tennessee boys and girls not finishing high school.

Mrs. George Smith of the *Columbus Dispatch* waded into the IQ debate and brought out the exceptions that cast doubt on the famed test. She also did a column in the first weeks of the new school year about the worries a first-grader has when beginning school. The same week she wrote about the problems facing a first-year high-school student.

The good examples in education reporting in local newspapers are very good. But they are few and far between. There are many reasons why this is true. Reporters, like teachers, have too much to cover in too short a time. The education beat has grown as fast and as large as the schools and colleges themselves. Not many papers have even one reporter assigned full time to education.

CAN NOTHING BE DONE?

On the whole, it would seem that education problems are treated in the same manner as death and taxes, something to bring forth a slew of statistics and grudging complaints, but something about which very little can be done.

Dropouts for instance are treated in several editorials. They either recommend that the kids stay in school to prepare for jobs or that they get out and get jobs now. Though some go so far as to mention the present high rate of unemployment among teenagers, virtually none discuss that generally ignored dumping ground for students, vocational education, and its obvious relation to dropouts.

Perhaps it is a valid attitude that little can be done beyond a show of respect for the size of the problems the schools face. However, the *Nashville Tennessean* doesn't think so. In a recent editorial it noted the progress made in its public schools since an aroused public had insisted on recommendations the school board had been unable to put into effect. "What prompted the public to act?" asks the editorial. "News accounts, published by this newspaper, outlining the conditions. We do not mention this boastfully for informing the public is no more than the duty of a newspaper. Until it is informed, the public has nothing on which to act. So our duty, much like that of a school teacher, is to enlighten."

This strong sense of duty is very much apparent in the way the education writers for these papers feel about their jobs. From their responses to a questionnaire, it appears clear that they see their jobs as public service as well as interesting assignments. Most are experienced, having five years or more on the education beat, and they're unanimous in feeling they have just scratched the surface in telling the education story.

They point to some drawbacks. They all have a feeling of frustration because of time, space, and manpower limitations. They wish they didn't have to cover so much routine stuff and could spend some time digging up reasons for the teacher shortage in town or delving into the problem of pupil motivation. They mention they would like to do more on curriculum, what is taught, how, and why.

Most of the education writers say educators are helpful when they get to know the reporter, but most writers also complain that the educator always wants his school system to appear in a good light and that he's in terror of being misquoted. One new education writer was more blunt, saying, "With some notable exceptions, educators hinder because of their assumption that only educators know education." ●

LOCAL newspapers are reasonably accurate, almost generous in amount of space alloted, and mainly friendly in attitude toward schools, school superintendents believe, according to a recent survey on reporting school news conducted by *The Nation's Schools*. Seventy-two percent of the respondents rated the press as friendly to the schools; 20 percent said they were unduly critical; and 2 percent listed them as "vicious." Some of the criticisms included: "Our local newspaper is against spending additional money for anything but roads" and "I realize that criticism of any institution sells newspapers, but we must be doing *some* things correctly." The reporting of school finances and board meetings were the areas most cited as being misrepresented.

Use of "Feedback" Is Important

Telling the Story Is Not Enough

GENE C. FUSCO

In School Life

THE strength and vigor of the American public school is dependent on the support of local citizens, which, in turn, is dependent on the citizens' understanding of school affairs.

The corollary of these two facts is that the school administrator, carrying out his objectives of improving opportunities for all children, is obligated to maintain an effective school-community relations program.

Although the definition of an effective program may vary, more and more administrators are recognizing that all programs require twin efforts: to raise the level of understanding through information programs, and to enlist community support by drawing citizens into meaningful participation in school affairs. Here, I am concerned with the first of these efforts. Today, several circumstances—the increasing size of school districts and the growing complexity of operation, continued specialization in administration and instruction, and competition among agencies, institutions, and groups for the time and attention of citizens—have made the always difficult task of interpreting school affairs even more formidable.

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School-community information programs call for regular and well-organized efforts to provide citizens with information about accomplishments, conditions, and needs of the school. Such programs should contribute to the citizens' understanding by providing them with a factual basis for the decisions they are expected to make on school finance and policy.

Typically, school officials use mass media of communication in telling the school story to the public. A three-year study at Stanford University on the part communication plays in achieving school-community understanding raises a question, however, about the effectiveness of programs that rely *solely* on telling the school story. One purpose of the study was to identify the sources that influence voters' attitudes toward school issues. The investigators found that communication efforts emerging from the central office had no lasting effect on citizens' attitudes other than to reinforce those already held.

Other investigators have reached similar conclusions. Summed up, the findings could be stated in these words: Mere diffusion of information about schools often fails to increase the knowledge of the general public and, more important, rarely changes attitudes toward the schools. Merely increasing the flow is not enough if the information continues to flow in the direction of those already having an understanding.

If dependence on information programs fails to create and sustain favorable public attitudes toward the school, what can school officials do to build harmony of understanding and cooperation between the school and the community?

Roald Campbell's analysis of four studies of efforts to promote school-district reorganization may yield some clues. The investigator found that personal feelings, opinions, and influence of friends and neighbors were almost twice as effective as sources of information as the "factual" information presented by professional schoolmen.

The wealth of literature on school public relations is devoted largely to descriptions of methods for *producing* and *disseminating* information to the public. Typically, the literature emphasizes the need for overcoming the physical barriers to communication through careful preparation of messages and use of a wide variety of media for transmitting, storing, and repeating the messages.

But the *psychological* barriers to effective communication present more imposing obstacles than physical barriers; the communication process can be completed only when the message is successfully interpreted by the recipient. Effective communication is a two-way process in which the interchange of ideas results in a change of behavior of both the communicator and his audience.

THE FEEDBACK PRINCIPLE

Recently, application of the feedback principle in technology and in human communication has been engaging the thoughtful attention of persons in the physical and social sciences. The stable feedback or selfcorrecting process of control is one through which the input of machines is regulated by the machine's output so that the output meets conditions of a predetermined objective. It is also employed in human communication.

In school administration, feedback is being recognized as an essential ingredient of school-community relations. Since it is the superintendent who needs the feedback, it is up to him to provide channels through which it can flow. He can develop and nourish several. Three efficient channels are person-to-person relations, citizens' committees, and community surveys.

Because of the population growth and the increasing complexity of community life, communicating on a person-to-person basis is difficult. But alert administrators encourage person-to-person and person-to-group contacts between staff members and citizens in the community. Staff members may solicit criticism of, and suggestions on, school operations and hear little-known complaints which loom large in the minds of citizens.

Even small communities have many organizations through which administrators can reach large segments of the population—service clubs, farm organizations, fraternal, and patriotic societies. These groups provide opportunity to exploit what one investigator considers a most significant discovery about human behavior—that individual attitudes are derived from organized groups. It is claimed that under certain circumstances it is easier to change the attitudes of an entire group simultaneously than to change attitudes of one individual at a time. The investigator, W. W. Charters, suggests that information can effectively create citizen attitudes where none existed and emphasizes the distinct advantages of face-to-face communication over impersonal means of communicating will become evident as a fundamental fact of social life.

Local citizens committees are established and maintained for the purpose of improving the public schools. Although most are organized for a special bond issue or to study pressing school problems, a committee may also serve as a sounding board for the board of education when no serious problem faces the school. A broadly representative committee can help the superintendent interpret public attitudes respecting school issues. Organized for this purpose, it is in a position to examine policies, proposed changes, present practices, and past performance of the school. With its help, both the superintendent and the board of education will know when citizens are ready to undertake new programs.

A community survey is a systematic method of gathering information—facts and opinions—about the community and its citizens. The information gathered can give the administrator background and time perspective against which he can examine the community. Through personal interviews and mail questionnaires, the administrator and his staff can learn what it is that concerns the many "publics" in the community. When he knows what information citizens lack, what they do not understand, and what concerns them about school affairs, he can tailor his information program to meet needs and conditions.

An alert superintendent encourages development and use of communication channels from community to school to determine how well or poorly the school message has been conveyed, the degree to which citizens understand school affairs, and opinions they have about school policy and finance.

The flow of information can aid administrators and their staffs in achieving greater understanding between themselves and the citizens they serve. •

A Report on Textbook Publishing

The Solid Gold Textbook

In Overview

THERE are many changes resulting from the rapid growth and economic ferment in book publishing since the 1950's. During the past seven years, dollar sales have more than doubled and leading publishers predict sales will continue to soar. Vivid indicators of the dynamism in book publishing are the many public stock offerings and the 24 mergers occurring since 1958.

When the bonanza began in 1955, book-publishing houses bore little resemblance to Wall Street's image of a growth industry. Run, for the most part, by clannish, scholarly men, most firms were small or medium-sized, several were family owned, and many specialized in books for a particular market. Most publishers, preoccupied with the esthetic and intellectual quality of their books, paid little attention to sales and distribution.

Today, the hard sell, the organization man, and Wall Street have moved into book publishing—apparently to stay.

Wall Street has shown especially avid interest in textbook publishing, which last year had sales exceeding $350 million on a volume of over 230 million copies. Probability of steady yearly spurts in textbook sales during the next decade has prompted experts to state that textbook publishing is virtually a recession- and depression-proof industry.

Capitalizing on the solid market value of almost all book-publishing stocks, many old-line firms have "gone public," offering privately owned securities for general sale. Within the past two years, for example, Scott Foresman and Company, Harcourt, Brace & World, and Ginn & Company have all sold several hundred thousands of shares.

Public-stock offerings have enabled many companies to expand their operations, using the money to merge with, or purchase outright, smaller or specialized (mainly textbook) publishing houses. This diversification has opened their book lists to a wider variety of readers. For one example, Random House, originally a publisher of general trade books, acquired the L. W. Singer Company in an effort to invade the lucrative high-school

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and college textbook markets. Since 1958, there have been more than a dozen important mergers involving textbook companies.

The major factor behind the boom is the equally booming United States population, accompanied by a tremendous rise in cultural and educational standards that has increased college enrolments and whetted the appetite for books among all age groups.

To satisfy the demand, publishers have increased the volume of books and have also increased the number of titles issued each year in most subject areas. In 1953, 12,000 titles were published in the U.S.; by 1960 there were more than 15,000. During that time, the number of education titles issued annually rose from 230 to 348; juveniles, 1,394 to 1,725; history, 590 to 865; and science, 695 to 1,089.

Meanwhile, the average selling price of education books has climbed from \$4.23 to \$4.97; juveniles, \$2.26 to \$2.74; history, \$5.66 to \$5.91; and science, \$7.28 to \$10.21.

Problems have accompanied prosperity. There is a stiffening of competition, as publishers scramble for bigger shares of the market, and a cost-price squeeze that kept profits from rising as fast as sales. Widespread discounting is forcing retail income slowly but steadily downward and profits have been slimmed further by increased advertising and distribution costs. Production and labor costs have also risen steadily.

Competition was intensified by the entry of several magazine publishers into the book field. The biggest is Time, Inc., which has set up a special division to publish a variety of informational books, ranging from atlases to textbooks.

Mergers are the key reorganizational feature of the book-publishing hurly burly. Although mergers help both parties do a more efficient marketing job, some mergers take place for private and tax-saving advantages.

Harcourt, Brace & World is one of several major publishing houses to sell stock to the public and complete a merger since 1960. The story is typical.

The firm's sales rose from about \$9 million in 1955 to more than \$17 million in 1959. In 1960, shortly before it sold a large block of stock on the open market, Harcourt merged with World Book Company, long-time publishers of elementary texts and educational tests. The merged company has thrived—profits for 1961 were \$2.8 million on sales of \$31.1 million.

THE PAPERBACK SUCCESS

The tremendous success of paperback books (over 300 million sold in 1961) has led several publishers of hard-cover books to prepare for large-scale paperback-textbook production. Some influencing factors are the extensive use of paperbacks in higher education and the studies now in progress to determine practicality of paperback texts in elementary and secondary schools.

Some educators believe paperbound books may be the means of reaching the cherished goal of permitting all students to keep all books issued to them. They say that students would benefit by having permanent possession of all books issued to them and the schools would be freed from the storing and repairing books expense.

Paperbacks are far from being "give-aways," even though prices are far below those for hard covers. Indications are that paperback prices will rise significantly during the next several years as titles in the public domain, such as *The Scarlet Letter* and *Don Quixote,* are exhausted and more and more contemporary titles are brought out with the added costs of royalty payments. Royalties, more durable cover and text paper, and steadily rising production costs add up to higher prices for paperbacks.

Textbook publishers have reorganized their industry along lines dictated by profit reports, a fact that cannot escape the book buyers in schools or colleges. Publishers should expect, therefore, that these buyers will exercise greater scrutiny—on their own or through faculty committees—of the worth of each book offered for sale. Hanging over the industry is the grave question, "Will financial success threaten the integrity of authors and editors?" If a sales chart does become the prime indicator of a book's worth, then a critical blow will be struck at the American classroom.

Over all, the book-publishing revolution is currently entering a phase of quiet consolidation. Lately there have been fewer important mergers, fewer public-stock offerings, and a stabilization of stock prices. However, sales volume remains high and industry's chief spokesmen are optimistic about the future. Most say they are looking forward to reaping the profits the present sales momentum seems certain to provide.

Their attitude is summed up by Bennett Cerf, president of Random House, who says that "publishing is just becoming a Big Business." In the old days, according to Cerf, publishing was run in a chaotic way by men who didn't like to think of themselves as businessmen. "This is all changed," he says. "I think we have our big years ahead of us, rather than behind us." ●

THE physician wrote a prescription for the ailing daughter of a first-grade teacher. Accompanying it was the following special set of instructions: "Give Betty *Polymagma.* Give Betty *Polymagma* today and tomorrow. Give Betty one teaspoonful four times a day. Look, Sally, look. Look at Betty taking her *Polymagma.*"—B. McArthur in *NEA Journal.*

Let's Have a "Fun Experience"

Teacher, Watch Your Language!

JAMES STEEL SMITH

In The Educational Forum

James Steel Smith is Professor of English, San Fernando Valley State College, California. Reported from The Educational Forum, *XXVI (May 1962), 427–30.*

THE suggestion I make here is meant mainly for elementary-school and secondary-school English teachers, children's librarians, and such professional educators as teaching supervisors and teachers in schools of education. I offer my remarks unpatronizingly and unscoldingly as humble hints from a college teacher of English who sees them doing something which he believes does serious harm to their various causes.

It is the use of educational jargon in articles and talks addressed to more than "insiders" and at conferences and roundtables where other academic disciplines and the general public may be represented. I am aware of this practice existing in other fields; indeed, I should like to see in all other fields a rash of articles with the purpose I have in this piece.

I am not primarily concerned here with the use of educational jargon in a confined, intramural way, as a sort of cozy shorthand which people who know one another well and pretty much agree on important matters may want to use on one another. Perhaps no great harm is done if the term "peer group" is used repeatedly in conversation among professional educators, provided they know what they all mean by it and are not using it as a substitute, rather than code, for accurate observation and close thinking.

I *am* alarmed about the use of these terms where they will do no good and may do harm—that is, within the hearing of laymen not oriented to modern educational thought and terminology. The use of this particular kind of jargon under such circumstances not only is confusing, but also has altogether disastrous results. It serves to confirm the worst suspicions of laymen and of academicians outside the education departments about the "softheadedness" or "wooliness" of "capital E educators," public-school teachers, and librarians. It gives the confirmed enemies of the methods and purposes of the teachers, librarians, and educators a handy target for their frequently quite witty, sometimes unfair and unrealistic, attacks, and it places in an embarrassingly helpless position those persons outside their own circle who might not be out of sympathy with the problems and would like to draw the two camps together where possible or desirable.

Whenever I hear an earnest high-school teacher or professor of education at a meeting of English teachers from *all* levels use such terms as "ongoing experiences," "social adjustment" or "life adjustment," "enriching experience" or "enrichment," I cringe—not because I disagree with what is meant (I usually do not know what is meant) but because I know there are individuals in the room who *will* cringe and will not now listen at all, even though the speaker may be saying something they could agree with.

Some of the listeners who cringe will use any rebuttal privilege or discussion period as an opportunity for ridiculing whatever they think they do not like about the speaker's views. Their mode of attack will be to use these same words in maliciously ridiculous ways.

When an unwary speaker refers breezily to the "ingroup," one may expect trouble. His speaking of "emotional release" may cause certain indignant souls to release their own emotions by attacking the unfortunate fellow — and through him his doctrines—who was so careless or unwitting as to use these red-flag words. "Creative goals," a "rewarding" or "satisfying" experience, and "evaluation" (minus the "critical") may also plunge the speaker into hot water if his listeners are orthodox haters of something they consider "educationism" or are prone to shiver at its jargon. If one is so innocent or so brave as to speak of "emotional security" or a "total experience" or of "goals" or "understandings" (without the *s*, it is quite all right) or —horror of horrors—"a fun experience"—then watch out! The ceiling will fall and anything sensible he has to say will be lost in the debris.

THE COMMON RESPONSE

All these terms have one thing in common—they provoke automatic responses from certain persons who generally constitute a very articulate minority of the attendance at professional meetings in the English "area." ("Area" is an increasingly dangerous word.)

Why should these terms, which move some people to warm congratulation and others to blandness and dozing, cause some people outside the professional education circles to shiver, grin, and then attack? While this question was not the one which led me to write this article (I am concerned with the utilitarian *recognition* of danger and its consequent *avoidance*), I will hazard some suggestions. Over the past several decades these words have been used by champions of ideas and practices which, for various reasons, many people have come to dislike. They include: electives, vocationalism, science education, anti-authoritarianism, "Deweyism," learning-by-doing, popular culture, emphasis on contemporaneity, pleasure as both means and end in education.

The words have become identified with those positions, and anyone using them runs the risk of associating himself and everything he says with those views and so incurring that wrath. These words have for a considerable time been current in professional educational circles, and there is no blinking the fact that some members of the academic world feel snobbish towards their fellow workers in the School of Education and in school superintendencies across the country. And so the words the educators have used come to be viewed as inherently inferior.

These are merely guesses, and I do not offer them seriously, but I am being very serious in pointing out what does happen and prescribing avoidance of the plaguey words by anyone who expects his suggestions to be viewed and discussed on their merits.

USE TIME AND CARE

There is nothing sacred about such terms as "ingroup," "learning experiences," "child-centered" or "fun experience." They are not an integral part of any educational philosophy or program; one can drop them and still advocate what he is for, if he will only use a little time and care—be a little more solicitous about the effects of language. One is not sacrificing any principle if he says "pleasure," "excitement," "laughter" instead of "a fun experience"—and he may thus avoid attacks from those who are after him for reasons irrelevent to the discussion. Even though a term like "peer group" or "structured" strikes you as having a special useful meaning, there still may be more to lose by keeping it if it is going to distract attention from everything else you are saying and throw the limelight on some happy parodist.

In recent years, there has developed among professional associations of elementary and secondary teachers and administrators in English a commendable desire to try to bridge an awkward and unfortunate gap by seeking closer liason with both the general public and the college teachers of English. This effort will collapse if, in bringing in new participants, they fail to throw out the language that will transform these visitors into destructive enemies within the gates.

The price for a little care about these target words is small. After all, there are plenty of good synonyms for "enrichment," "meaningful," and "integration." After long selfindulgence, of course, it may not be easy to catch oneself in the use of these too-handy words. But this is no insuperable obstacle. If one has to, he might have a hater of such terms go over the prepared talk or article and throw out every red-flag expression. It is conceivable that in helping you he would discover he agreed with some of your notions. •

What Can We Do about the Dropout?

The Children Nobody Wants

Mary Conway Kohler
and André Fontaine

In The PTA Magazine

TODAY there are a million young people who have no place in America. They are defeated. Next year there will be more, and the year after still more, unless parents and schools begin action against this compelling problem.

Our society has failed these million young people. The majority are youngsters whom the schools—and their own parents—have allowed to leave high school before graduation. The rest have diplomas but lack the will and the marks to get into college, as well as the skill that could buy them jobs.

If these million youngsters cannot get jobs because they have no skills to sell, why were they not kept in school and taught a skill?

For an answer you have to go back, back to a boy's earliest experiences in school—even back to his home life before that. It must also be realized that today we are trying to send virtually all children through our schools; 99.6 percent of elementary-school-age children are in school. Never before has such a feat been attempted. Included among these youngsters are the halt as well as the swift, the emotionally crippled as well as the brilliant.

Our schools were not originally designed to educate all kinds, and too many schools have remained straight-line descendants of the classical academies that taught Latin and Greek to the better endowed sons of the upper classes. The language the teachers and the textbooks speak in these schools is that of the intellectual, and teaching is done by words—words spoken, written in books, and on a blackboard.

But there are children who do not learn by words; they learn by sounds, by feel, by body movements. In our schools these children do not learn at all. The first failure is usually reading, and if they cannot read, other failures follow quickly. By the sixth grade, these children are so convinced they will always

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fail that they stop trying. They become isolated from teachers, students, and perhaps even their parents.

Sealed in a narrow and frightening world, they do one of two things: They withdraw into a safer make-believe place, or they lash out at the threatening enemy-life around them. And they drop out of school as soon as they can. When they leave, many cannot read beyond the fourth-grade level. This prevents them from mastering any skill in a technological society.

These word-blind children are not the only ones who fail to read, nor are nonreaders the only dropouts. There are those with emotional problems, those with language difficulties, and those from a culture so different that they seem to be going to school in a foreign country. And in a great many school systems today a large number of those who *do* graduate are not prepared for any job.

VOCATIONAL EDUCATION DEFECTS

Vocational education, by and large, fails its purpose. Many communities provide no vocational training at all. Others, in rural areas, give only a course in vocational agriculture—at a time when only one boy in ten in rural areas is going into farming.

In other places, vocational education is unrealistic in that shop equipment is obsolete, students are trained for jobs that do not exist in their community, or the training is not recognized by unions and thus does not help a boy to become an apprentice.

Furthermore, too many communities offer only those vocational courses for which they get some reimbursement from the federal government. Often these courses train for types of jobs that are not now available; yet the schools keep turning out graduates for whom there is no place.

These defects help to explain why we have a million youngsters without jobs. Obviously, something needs to be done.

Attention is being given to the situation by the federal government But even with legislation and appropriations at the federal level to aid in training and job placement there is still a much bigger job remaining. That job is to change our schools and our communities so that we no longer sentence youngsters to years of unemployment and hopelessness. This is a task primarily for local communities, and it is intimately a task for parents and for schools.

The solution to our present problem breaks down into two parts. We must try to prevent children now in the lower grades from leaving school without some skill to buy a job, and we must find places for those unskilled youngsters who have left school.

MORE GUIDANCE NEEDED

In the schools, more and better guidance is a chief need. We are speaking mainly about two functions of guidance: vocational guidance and placement and early help for the child who, without it, will drop out of high school.

Today there are not enough trained vocational counselors, and they are not able to give enough time and attention to helping a student who is not going to college to get proper training and a job. Where help is given in most places, it is offered too late. The usual pattern is for guidance personnel to work with the one-third of the students who are college bound and to neglect the other two-thirds.

To do his job properly, the vocational counselor must spend hours learning what jobs are available in his commuity, what kind of skill and training they require, and how the job requirements change from year to year. He must also have time to follow up the youngsters he has placed in jobs, since this is the final test of the program. Few counselors today have time enough to do this as well as they would like.

Most schools do not have enough trained guidance personnel to give adequate aid to those youngsters who are failing and are likely to become dropouts. Recent studies have shown that it is possible to identify these youngsters as early as the third grade. Other studies show that to wait until the sixth grade is to be too late to be of aid.

We know how to identify and how to teach the overwhelming majority of these children. We need to mobilize the knowledge, the counselors, and the teachers and to put them to work. The future waste of millions of youngsters can be avoided.

EXPLORE OCCUPATIONS

A second major task for schools is to provide a way for youngsters to explore different occupations, possibly through a system of shop courses in junior-high school. The end of junior high marks a time for making a major decision about the youngster's future—what kind of course will he take in high school? If the decision is not to go to college (about two-thirds of our children do not) this decision will determine whether he will be a skilled or an unskilled worker and even, perhaps, whether or not he will stay in school long enough to graduate.

Before making that decision, the youngster should have a chance to know the nature of a number of different kinds of occupations, to learn the realities of work in different jobs, and to sample different skills. Some school systems have established wide-ranging exploratory shops; others are experimenting with work-experience programs. But whatever method is used, youngsters in every school should be given broad, realistic bases for making their decision.

A third task of the schools is to take up the challenge offered by our society's demand for higher skills and new, changing, sophisticated techniques. We need men trained in these skills. Since we have no jobs for young people anyway, an obvious solution is to keep youngsters in school longer and teach them skilled techniques.

If such a solution is to be attempted on a large scale, the schools alone cannot do the job. Parents must help. They must take the lead and, backed by their school officials, put pressure on state legislatures to pass appropriate legislation.

In solving the immediate problem of the million young people each year for whom we have no place, federal and state governments have a responsibility. Legislative acts such as the Youth Employment Opportunities Act, could help. Parents and educators must make known to their elected representatives how they feel about the urgent nature of the need for a solution to this problem.

The responsibility of the schools has changed enormously in the past three decades. Families have been pulled apart by divergent interests of their members, and our complex life has taken broad areas of a child's experience out of the hands of parents. The schools remain the nation's only universal youth agency. Today their job is not to beat or sneak knowledge into a child's head; it is to take a warm, sentient, eager-eyed five-year-old and turn him, a dozen years later, into an independent, selfsustaining, contributing young man. ●

Hope for the Unwanted

● HIGH hopes are being held for New York City's Mobilization for Youth project, which joins together the federal government, the city government, neighborhood workers, private agencies, and a university in a planned, coordinated attack on delinquency sources. The project in June received a $1.9 million grant from the federal government—the first made for a local demonstration project under the Juvenile Delinquency and Youth Offenses Control Act of 1961. Called "the most advanced program yet devised to combat delinquency sources on a broad scale," Mobilization for Youth is based on the belief that obstacles to economic and social betterment among low-income groups are the main cause of delinquency. Basic to the Mobilization proposal are two groups of programs, "The World of Work" and " The World of Education." In "The World of Work," the Mobilization has three main objectives: to create new jobs for youth, to increase the visibility of existing jobs, and to increase the employability of young people. In "The World of Education," a variety of programs have been developed to improve school facilities and to meet the special problems of "slum children in slum schools."

Reflecting the Needs of the Times

School Organization—in Historical Perspective

STUART E. DEAN

In Elementary School Organization

THE educational system of a society reflects, in significant ways, the controlling philosophy and purpose of that society. Our own system of free, universal, public education has emerged in support of our commitment to democracy.

Over the years, the schools have changed as the nature of society has changed. They have changed in program, in methods of instruction, in facilities, and in organization to support program and purposes. The hypothesis that school organization has followed the general pattern of basic changes of national philosophy and social purpose requires looking back at these changes as they have affected the elementary school.

In our nation's early days, the colonial period, schooling for young children took place in the home. This led to such devices as the "dame school," the "reading school," the "writing school," and others.

Organization in the early elementary schools was in its simplest form: one-teacher, one-room, one-group schools, with instruction based largely on a "read-recite" concept. Schools were in homes, vacant shops—wherever space was available.

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As numbers grew and sizes of groups increased, one teacher could not handle the situation and a system of monitors was developed. Under this plan, small groups of youngsters were instructed by pupil assistants who had already been taught their lessons by the master. Later refinements of this monitor system led to crystallization into the "Lancastrian system," a monitorial procedure which enjoyed widespread use during the latter part of the eighteenth and the early part of the nineteenth centuries.

A distinctive benchmark in elementary education was established in 1848 with the creation of the Quincy Grammar School in Boston. This development was to have greater impact on elementary school structure than that of any other single development in school organization. Its one-teacher-per-grade

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organization was the beginning of what is known as the "graded" school, still the basic style and the forerunner of what is now known as the selfcontained classroom. While slow to spread at first, the movement gathered momentum until by the latter part of the nineteenth century it was the prevailing method of elementary-school organization throughout the nation. It was a near perfect solution to the problems of organization and standardization—a structure in harmony with the spirit and need of the times.

Inevitably, after a number of years, a few disquieting and disturbing objections appeared. While the graded school had much to recommend it in terms of administrative efficiency, questions were raised concerning its educational integrity and merit. In the latter part of the nineteenth century, a welter of innovations and improvisations made their appearance. All sought to correct the faults of the graded-school system.

Many of the innovations became identifiable in terms of a particular name or label, such as the Saint Louis Plan (1862). Many remain fairly well known and some elements of their contributions persist today. Most of them sought to individualize instruction, to break the lock-step, and to permit a higher degree of flexibility through some attempt to reorganize the basic organizational structure.

These attempts grew from a concern about alarming increases in nonpromotions and failures, apprehension that brighter students were restricted to unchallenging situations, the dropout rate in upper elementary grades, and overcrowding in the lower grades.

Thus, from the outset—from the colonial dame school with its monotorial modifications, through the creation of the basic graded school, into an era of multiple approaches and attempts to correct the shortcomings of the graded schools—the nature and spirit of the educational programs reflected the needs and demands of the times.

When the major goal of education was to qualify a limited number of children for entrance to secondary schools, the organizational pattern provided for direct, immediate, almost personal instruction. When the goal changed to one of universality of education, the organizational response was to establish an impersonal, inflexible structure geared to indiscriminate group instruction. Only as shortcomings and problems became evident were attempts made to modify the structure of schools in accordance with realities of large-scale education—attempts in the form of devices and techniques which sought either to individualize instruction or to adjust to human variance by providing for different rates of progress.

THE TWENTIETH CENTURY

The advent of the twentieth century brought another period of experimentation with elementary-school structure, continuing to reflect dissatisfaction with the graded-school concept. Here, too, was a continuation of the influence of changing social and economic needs and demands. The nation moved rapidly into the era of industrialization, with its increased need for skilled labor, while absorbing the impact of vast immigration and giving recognition to the importance of behavioral skills and social attitudes as legitimate elements in public education.

The social forces produced development of plans for modification of the elementary-school structure. As before, most of these plans became identified with a particular name or place. A partial listing would include: The Platoon School (1900); The Gary Plan (1908); The Dalton Plan (1919); the Winnetka Plan (1919); The Detroit X-Y-Z Plan (1919); and the Cooperative Group Plan (1930). These are only a few of the more publicized attempts to provide for individual differences and to break the rigidity of the structure.

One clear incisive conclusion emerged from the repeated attempts at improvement, and as a direct result of the structural weaknesses: Under the graded-school organization, the educational needs and perspective of the individual child had often been subordinated to the importance of smoothness and expediency in school organization and administration.

Following recognition of this fact came a drive for ways in which instruction could be individualized. Individualization of instruction became both the focal point of effort and the resultant contribution of attempts to modify elementary-school structure during the first half of this century. Once again, schools were responding to forces of social change and shifting emphasis of educational need and purpose in this country, and to problems attendant on mounting numbers of children and shortages of teachers, facilities, and financial support.

QUESTIONS RAISED

Questions raised today can be posed against that background. What factors contribute to current doubt about present methods of organization and are paving the way for experimentation and change? Why have nearly all the experimental programs of the past century failed to endure? Why is school structure a continuing topic of study and debate?

In attempting to provide answers, we need to keep in mind the cross currents at play in elementary school organization. We have faced realistically the need for providing elementary education, in mass numbers, for all children. The immensity of the challenge has resulted in a tendency to beam the program at the mythical average child. The image of the average child tends to mirror statistics rather than human beings and organizational procedures become so impersonal and standardized that the individual child is overlooked, and there is failure to give proper balance and perspective to provisions for individual differences. While the theoretical approach to efforts during the first half of this century to individualize instruction might have been sound, the magnitude of the job to be done with limited funds, personnel, and facilities, made such efforts futile.

Also, from the educational psychology viewpoint, the programs of "individualizing" instruction fell short in another fundamental quality in that all adjustments the innovations sought to provide were within the single dimension of *rate of learning*. This limited approach neglects the broad range of the teaching-learning situation, which includes: varieties of interests, needs, backgrounds, talents, readiness, motivations, etc.

Though the efforts to improve instruction were sincere and well-intended, they were shortsighted and limited in perception of the task. Possibly commendable as far as they went, they missed the salient understanding that rate is only one contributing factor to the total process. However, the efforts were signficant as evidences of dissatisfaction with the graded-school.

There may have been other factors which prevented these organizational plans from achieving their goal of more effective instruction for each child. Many of the approaches tended to present subjects in isolation without relationship to other curricular learnings. Other factors possibly contributing to failure include: inadequacy of personnel, insufficiency of financial and physical resources, and failure to weigh all elements involved in providing a balanced program of education. However, a basic weakness appears to have been dedication to a single premise that subject matter could be detailed in advance for all children. This had the effect of ignoring the realities of human differences, resulting in efforts to fashion children to the school's program rather than in efforts to provide a program which could meet and serve the variances among children. This is not intended to suggest that there are not certain bodies of common knowledge, skills, and attitudes for all children; it does say that all children cannot learn all things in a standard way and at the same time.

History has established the fact that of the score or more attempts to solve the problems inherent in the graded-school concept and to cut through the restrictions of organizational devices, not one plan has stood the test of time. Only traces and vestiges of these various proposals remain today—scattered and in separate schools. No single movement to modify the graded plan actually took hold for any extended period of time; and each fell by the way because it did not come up with the necessary solutions to the problems.

Teachers Will Need Skillful Leadership

The Future of Research in Reading

ARTHUR I. GATES

In Education

THE most important characteristic of teaching reading today is a general pattern. This pattern, which embodies a number of components of materials and proceedures, is the result of nearly a century of evolution. It was suggested by a group that included G. Stanley Hall, E. B. Huey, John Dewey, E. L. Thorndike, Charles Judd, and others who were active shortly before and after 1900. Most were very critical of the program based on difficult, literary, basal readers, supplemented by a stiff system of phonics then in use.

During the twenties, stress was on a more systematic and thorough program of instruction in the basic reading skills. Readers that were carefully graded in difficulty, containing all kinds of reading material, and designed primarily to teach reading (not literature, history, or manners and morals) were recommended. The organized workbook or study program also was introduced during the twenties, suggested to provide the teacher with more time for engaging in individual guidance.

Also during the twenties, comprehensive and complex diagnostic and remedial programs were developed. Studies were carried out primarily to find ways of improving everyday teaching of the puzzling variety of children which every teacher encounters.

This, briefly, is the general pattern of teaching reading developed since 1900. None of the recent suggestions for improving teaching reading is necessarily in conflict with this pattern except possibly one—the teaching of phonics for weeks or months before the child has begun to read, the procedure strenously objected to by the 1900 group and before.

I think it is high time for a change in our activities in this area. For some years, we have spent time and energy in debating an almost nonexistent issue—the relative merits of phonics and nonphonics ("the whole word" or "look-and-say" or "word configuration," etc.) methods. No one doubts the value of certain phonic skills. All reading programs with which I am familiar provide for teaching phonics. There are disputes concerning the time to intro-

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duce phonics, the amount and kind to teach, the length of time to carry it forward, and the ways to relate it to other forms of instruction. It is time to stop attacking the "look-and-say" straw man and get to work studying theoretically and experimentally the many rival programs facing us.

There are the advocates of "individualized reading" programs, who propose not a new pattern of teaching, but a new emphasis of its components. In general, they propose that relatively more of the teaching be done by direct, oral instruction by the teacher, and that relatively less be left to readers, practice procedures, and mechanical aids.

The practical question here is, of course, can the typical teacher, with a class of 30 pupils before her, reasonably be expected to become sufficiently expert and to find sufficient time to conduct a program of this type along with everything else she is called on to do? Some say teachers should be able to do so; others are doubtful; and many say an emphatic "no."

Then there is the concept of "programed learning." To my mind, individualized teaching and programing are really buddies. Each can help the other move along toward a good objective. We need more and better kinds of both.

B. F. Skinner and others have demonstrated the enormous potency of well-programed procedures. It is, I think, now clear that good programing can be made so productive that it may often be the most vital factor in a teaching procedure.

As many critical reviews of research have suggested, complex programs usually leave uncontrolled so many variables that one often cannot tell which ones produced the results shown in a comparison of two or more of them. The experimental group nearly always wins, often as a result of no merit of its own. This tendency suggests that in research, as well as in daily practice, we must be concerned with boredom and backsliding and the development of immunity. Any new program taught with reawakened alertness and drive will probably show up better in a control group test than an old one, taught lackadaisically, even if the latter is intrinsically better.

REQUIREMENTS

In consideration of these difficulties, it appears that several requirements are encountered. One is that control-group studies must be conducted on a wide scale, including a large number of carefully selected communities. Secondly, all the variables likely to be influential must be measured or appraised thoroughly at frequent intervals and kept under careful observation at all times during the course of several years. Third, a succession of similar groups should be launched at intervals of a year or two, each to be followed from a beginning to a fairly mature stage.

We simply must face up to the

fact that large-scale, time-consuming investigations must be carried out in education as they are already being conducted in other fields.

Leaders in the study of reading instruction must be prepared to defend progress against several threats and the atmosphere of panic which seems to surround us now and which tends to make us want to "do something" in a hurry.

Persons quite unqualified are proposing decisive action. Poorly informed school superintendents and principals occasionally force hasty changes. Professors of college English and others tell us exactly what to do. Men and women trained in psychology or other fields but innocent of knowledge, or of experience, in teaching reading undertake to develop teaching-machine programs. To prepare a first-rate, Skinner-type detailed program requires more, not less, knowledge of the field of reading than preparing a typical little workbook of the types now in use. "Programing reading" is no job for an amateur.

One of the problems faced by enthusiasts for programing in reading became apparent a quarter of a century ago. This is the problem of motivation. When work with programed materials such as workbooks, practice exercises, phonic drills, and other types of drill booklets was carried too far, in comparison with reading of senseful material, most children got bored and restless.

The major principle growing out of nearly a century of investigation of teaching reading is that wide reading is the heart of the program. Persons developing programed reading should take this fact into account. Programing, of course, can be only a means to this end.

TWO IMPORTANT NEEDS

Because I cannot in this article deal with all the important needs for research in the future, I have decided to merely give a nod of recognition to two of the most important.

One is the whole field of laboratory, experimental, and analytical research. Advances in teaching reading have been based more fully than on anything else on such studies as perception of words (1875-1900), eye movements (1905-1920), and reading as a thinking or problem-solving process (1910-20). Research of similar types will be as indispensable in the future.

Secondly, research in the future should not be misguided, however great the pressure, into devoting energies to minor needs to the neglect of major issues. For example, I do not believe that the study of phonics in the future compares in importance with the investigation of the diversity of complex and subtle forms of reading—from light fiction to heavy technical texts—which we should be cultivating at the upper grades and at the junior-high and senior-high school levels. It is here that current programs are most conspicuously inadequate and incomplete.

A most important issue is the role of the teacher in reading instruction. A good teacher has at her command many teaching procedures, in addition to those contained in the basal series manual. She is free to teach as much or as little phonic and other word study skills as she chooses. The teacher's freedom to teach in the way and to the extent which she thinks is best is accompanied by her freedom to do as little as she may choose. Results will vary from good to bad, depending on the quality of the teaching. This suggests how crucial is the question of deciding what the role of the teacher of the future should be. This is the question of what and how much instruction should be programed in advance and what and how much should be left to the teacher.

Whether one conceives the teacher of the future as a slave to a fixed routine or a master of the teaching art, it is important that an over-all program of teaching is evolved in which each procedure is effectively coordinated with others.

The world of tomorrow will confront every child with innumerable problems for which solutions cannot be programed because the solutions are not known. The programed-materials devices cannot fully supply all the features of a good reading program. Children must learn to solve their problems by mental maneuvers which cannot be foreseen by makers of programed materials. It is here that a highly trained and skillful teacher is most needed.

And it is precisely here that we are likely to make the mistaken assumption that programed learning and other such teaching aids are hostile to insightful and creative teaching. Properly employed, they should help the teacher become more effective by giving her an understanding of learning in its most detailed and intricate form, and by releasing the precious time she must otherwise spend on routine teaching to do what only she can do. Effectively used, programed materials and other aids will not replace or degrade a teacher; they should increase his insight and effectiveness.

If teachers of reading are to move up to the level of professional expertness instead of down to the level of vocational routine, they will need skillful and courageous leadership. At no period during my 50-year professional life, has the danger of retrogression been so great or the opportunity for progress so promising. ●

THERE is *no one* book, and its brand of teaching reading, that is so superior to all others as to render it imperative for school systems to adopt exclusively that one book and brand of teaching (for) their entire program.—*Learning to Read.*

From Normal Schools to Colleges of Education

A Century of Teacher Education

PAUL WOODRING

In School and Society

Paul Woodring is Editor, Saturday Review, *Education Supplement. Reported from* School and Society, *XC (May 5, 1962), 236–240, 211.*

WHILE the beginnings of professional education for teachers may be traced to a quarter-century before the Civil War, when state normal schools were first established in New England, it was after the war that teacher education, in the professional sense, became a part of higher education.

There were no teachers colleges 100 years ago; universities had not yet established schools or departments of education; and the subject of "education" would have been difficult to find in course listings of American colleges.

After the Civil War, a few universities and colleges, mostly in the Middle West, established chairs of "pedagogy" or "didactics," usually found in departments of philosophy, which at that time also included whatever psychology was taught. In Iowa and Michigan, state universities formed departments of education during these years, and Teachers College became a part of Columbia University in 1892. But most of our university schools and departments of education did not come into being until after 1900.

Throughout most of the nineteenth century, it was the normal schools and institutes that carried responsibility for teacher education, and both focused attention on preparing teachers for elementary rather than secondary schools. Neither was a part of *higher* education. The nineteenth-century normal school usually accepted students with only an elementary education, and institutes often had no admission requirements. Yet, both these institutions made important contributions to teacher education, and they set the pattern for much that was to follow.

Institutes offered short courses of a few days or a few weeks, taught by itinerant speakers or local school administrators who gave instruction in schoolkeeping and inspirational lectures. The poorest institutes were probably better than none at all because they brought teachers together for a discussion of mutual problems. And when a Horace Mann came to speak, or when William James came to deliver his "Talks to Teachers," as he did in the 1890's, the institute must have reached a peak of excellence.

Ever since normal schools were

founded, there has been a great deal of debate about the quality of education they provided. Perhaps the reason is that there was a tremendous range in quality among the different institutions and the debaters were not talking about the same schools. At worst, the normal school was a shabby little institution with one teacher teaching courses in pedagogy with perhaps a little time for review of elementary subjects. At its best, however, it was a very substantial professional school headed by an able educator assisted by a devoted faculty.

In addition to courses in pedagogy and a period of supervised practice teaching, the best of the normal schools offered an academic curriculum comparable to that found in the better academies of the day and probably not inferior to that found in the first two years of the liberal-arts colleges.

Although reliable statistics are hard to come by, it appears that by 1900 the majority of urban elementary-school teachers had received at least a short period of normal-school preparation. Rural schools, however, continued to employ many teachers with only an elementary-school background plus a few weeks of attendance at a teachers institute.

While the number of private normal schools declined after 1900, being unable to withstand competition from tuition-free, publicly supported normal schools, the number and enrolments of state normal schools grew rapidly until about 1920.

By 1900, the growth of public high schools let many normal schools require a high-school diploma for admission. This enabled them to reduce their attention to secondary-school subjects and to take steps toward transforming themselves into four-year, degree-granting teachers colleges. Nineteen state normal schools made this transition between 1911 and 1920; 69 between 1921 and 1930; and most of the others did so between 1931 and 1950, by which time the normal school had become almost obsolete.

CHANGES IN NAME

The state teachers colleges, however, had a short life. Within 20 years after emerging from the normal schools, they began transforming themselves into general state colleges or state universities which granted liberal arts and other degrees, as well as the B.S. in Ed., which was usually the only degree offered by the teachers college. This change came first in the Middle West and the Far West. It came more slowly in the northeastern section where powerful private colleges and universities bitterly resisted efforts of the teacher colleges to take on new responsibilities. As one example of the transformation, in Michigan the normal school at Kalamazoo became "Western Michigan State Teachers College" in 1927, "Western Michigan College of Education" in 1941, and

"Western Michigan University" in 1957.

The changes have not been in name only. A new kind of college has emerged which continues to prepare many teachers but also provides a general or liberal education at modest cost for those who do not plan to teach. The academic courses offered in these colleges and the professors who teach them have the same strengths and weaknesses as are found in other undergraduate colleges, both public and private.

Since 1900, universities have accepted a growing proportion of the responsibility for teacher education. During the first two or three decades of this century, most of the major universities established schools or colleges of education and the others established departments of education. Today, all the major state universities and many land-grant colleges and municipal universities maintain large schools or colleges of education.

In some state universities, all undergraduates planning to teach are encouraged to enrol as freshmen in the college of education. In many others, the college of education enrols only those planning to teach in the elementary school or those planning to teach physical education, home economics, etc., in high school, while those who plan to teach the academic courses at the secondary level earn their degree from the liberal arts colleges, taking only such work in the school of education as is required for certification. But even when the prospective teacher is enrolled in the college of education, he usually takes the major portion of his academic work in the liberal arts colleges; and if our teachers today do not know their subjects, or are not liberally educated, the responsibility must be accepted by the academic professors who failed to teach them properly.

Some large private universities maintain undergraduate and graduate schools of education similar to those found in state institutions. Many, however, including such institutions as Harvard and Chicago, have graduate schools of education only, while Princeton and Yale have neither schools nor departments of education. Teachers College of Columbia University has become in recent years almost entirely a graduate school.

QUALITY VARIES

Today, American teachers are prepared to the initial point of certification in more than 1,100 different colleges and universities. There is, inevitably, an enormous range in quality. Unfortunately, the colleges with the highest entrance standards and the highest standards of instruction do not turn out their share of teachers. They draw their students from socio-economic classes in which parents as well as students do not look on teaching as a sufficiently satisfactory, remunerative, and "prestige" profession, particularly for men.

But, although the talents of the students and the quality of instruction varies greatly among colleges educating teachers, there is a fair amount of uniformity in the courses studied—a uniformity resulting in considerable part from state certification requirements.

Of the 52 certification authorities (50 states plus Puerto Rico and the District of Columbia), 51 now require the bachelor's degree for beginning high-school teachers and 44 require it for elementary teachers as well. Nine states require high-school teachers to complete a fifth year of college during the period of initial certification and three require a fifth year for beginning secondary teachers.

The required course nearly always includes a period of general education approximately two years in length, plus two more years with time divided between a major in an academic discipline and a sequence of professional courses. For elementary teachers, the professional requirements range from 16 to 36 semester hours in the different states, with a median of 21 hours. For secondary teachers, the range is 12 to 29 hours, and the median is 18. However, many colleges require more professional hours than the state requirement for certification.

EVALUATIONS

None of the various programs for teacher education has ever been evaluated adequately in terms of the ultimate criterion—the effect of the program on the learning experiences of the children whom the teachers will teach. The variables are too complex; the results cannot be known until the teacher has taught for many years; and there is insufficient agreement about the proper goals of education.

There is, however, widespread agreement that any sound program for teacher education must include: a substantial program of general or liberal education; a knowledge of the subject or subjects to be taught, which for a secondary teacher should be provided by a strong academic major at the undergraduate level plus some graduate work in an academic discipline; a knowledge of the contributions of philosophy, history, psychology and the other social and behavioral sciences to an understanding of the place of the school in the social order and the processes of learning; and a period of practice teaching or an extended internship, during which time the prospective teacher tries various methods of teaching under competent supervision.

There is still, in 1962, widespread disagreement about the proper organization and content of professional courses and about the place of these courses in the curriculum. There is also disagreement about whether the internship should come during or after the undergraduate work. It seems clear, however, that, in the years ahead, teacher education will not be a thing apart, provided by separate institutions for teachers, but will be a part of the mainstream of higher education. ●

French Industry Urges Education Changes

In France Actuelle

BUSINESS leaders in France are calling for a new hard look at their nation's general education system. Despite its high scholastic standards and the rigorous demands it makes on students, they suggest that curriculum and organizational changes are in order if France is to hold its own in the nuclear-space era.

The business leaders are placing emphasis on modernization and flexibility in the curriculum and on introduction of practical science teaching early in the educational cycle. They favor a less theoretical education and would place greater stress on practical application of knowledge to today's realities.

A group of businessmen, educators, government officials, military men, and practitioners in various fields of science recently completed a review of French education and its relationship to industry. The published report included these findings:

The French educational system is not sufficiently in step with modern industry and the modern age.

Its approach to many of the basic subjects is obsolete, while the teaching of modern subjects includes an enormous amount of detail, much of it useless and tiring to the student and poorly absorbed by him.

The curriculum should be revised to retain only those subjects and methods which help the student to form good judgment and which establish a framework of permanent reference.

Abstract ideas should be illustrated with concrete examples.

The report issued by the group was particularly concerned with curriculum and teaching methods, and proposed immediate changes in subjects studied and the way they are taught at various educational levels.

They recommended revising methods of teaching mathematics and the physical sciences. As a solution, they suggested approaching these subjects in primary school and a far greater use of visual aids. They reasoned that, once the child's interest has been aroused, elementary and practical science physics should be introduced during the most intuitive and curious period of childhood. The report stated a belief that it is a mistake to begin

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the teaching of physics and chemistry late and to present only the theory; practical problems and applications should be demonstrated to younger children.

One of the most difficult problems, the group concluded, is to reach agreement among pedagogues on what should be kept and what should be dropped from the traditional curriculum. Taking mathematics as an example, the group approvingly commented on a seminar sponsored by the Organization of European Economic Cooperation (now the 20-Western-nation Organization for Economic Cooperation and Development). The seminar produced recommendations for reorganizing the teaching of mathematics.

All participants in the study group were agreed on the need to modernize the teaching of mathematics and to publish new textbooks and manuals. Viewing the problem from the international viewpoint, they recommended that the Organization for European Economic Cooperation appoint a commission of experts, including teachers of mathematics, to establish a composite picture of what secondary teaching in this field should cover; also, to define the philosophy behind it. This presentation would include various methods of treating the subject along with supporting data for each suggestion. On completion, it could be presented to member countries of the international organization with the recommendation that it be transmitted to their authorities in secondary education.

In the course of the seminar discussions, the businessmen in the group made the point that in taking on a new employe they assign great importance to the candidate's knowledge. "But," they said, "equally important are his intellectual and moral qualities, and these at present seem almost totally overlooked by educators. It is time they begin developing them."

The participating experts suggested that it would be helpful in this respect if businessmen would define more precisely their quantitative and qualitative needs insofar as education of the young is concerned.

Actually, the French educational system has been making a big effort in the past decade to adapt to conditions and needs of the mid-twentieth century. As in the United States, France faces problems of teacher and classroom shortgages and enormous increases in the student population. Public education appropriations have increased greatly, but are still insufficient.

One measure of the quality of French education is in the numbers of foreign students enrolled in French universities. According to one report, more than 25,000 foreign students are pursuing studies in France. They come from all over the world, including 8,000 from Africa, the largest group, 2,000 Americans, 500 Latin Americans, and 250 Canadians. •

★With Education in Washington★

THE EDUCATION DIGEST WASHINGTON BUREAU

Cost of Quality.—If the American people really want high-quality public schools they should be prepared to more than double the amount per pupil they are currently spending, according to the NEA's Special Project on School Finance.

Financing the Public Schools 1960–1970, a 150-page report of the two-year special project, concludes that the current annual expense for schools should be $33.6 billion by 1970, compared with $12.3 billion in 1959–60. This means that current expenditures per pupil enrolled would increase 110.9 percent from $341 in 1959–60 to $720 in 1969–70, if high standards of quality are met in all states.

The NEA estimates for 1970 assume:

1. Enrolment of virtually all school-age children and youth in a public or private school;
2. A substantial increase in the percentage of boys and girls finishing high school;
3. Salaries for teachers comparable to earnings in other professions and competitive with salaries offered the best college-educated talent;
4. Considerable improvement in the average training and experience of instructional staffs (57 percent of all teachers would have masters or higher degrees); and
5. A staffing ratio of 50 professionals per 1,000 pupils—the Educational Policies Commission formula for adequate instructional, supervisory, and administrative services, plus the supporting services now provided in the nation's best school systems.

The NEA report says these standards would make it possible to staff the schools of 1970 with "highly trained professional persons who will devote a lifetime of service to teaching, who will return to schools every second or third summer to increase their knowledge, and who envision classroom teaching as important as any other profession for a college trained person."

The report's goals for 1970 include a beginning salary for classroom teachers with bachelor's degrees of $6,000 (a goal recommended by the NEA Representative Assembly since 1959); an average salary for all classroom teachers of $9,710; and maximum amounts which range from $9,773 for teachers with bachelor's degrees to $15,162 for those with doctorates.

Designed as a source book for the public and for state and national legislative committees of teacher associations, *Financing the Public Schools 1960–1970* includes 64 pages of tables, showing individual esimates for each of the 50 states. A mine of information, it is well worth the $1.50 price.

The facts are incontrovertible. We hope that NEA Research Director Sam M. Lambert is right when he confidently asserts: "The vast majority of the American people want and need to know what *quality* education is going to cost; they are not interested in pricing a second-rate school system for American children."

Educational Adventure. — Next January, between semesters, two high-school juniors or seniors from each state will spend a week in Washington observing the workings of government as guests of the United States Senate. From January 27 through February 1, 1963, the "high-school interns" will meet and work with Senators and their staffs, observe Senate sessions and committee hearings, and interview various government officials.

Under the terms of a Senate resolution passed unanimously last May, the students will be selected by each chief state school officer from among those who have been elected to class, student body, or student council office. An oratorical or essay competition is suggested but not required as part of the selection process. The students will be chaperoned by military officers. Their transportation, housing, medical care, and necessary insurance will be provided.

The committee which is supervising the "U.S. Senate Youth Program" includes Senators John Sherman Cooper (R-Ky.), Clariborne Pell (D-R. I.), Carl T. Curtis (R-Neb.), Hubert H. Humphrey (D-Minn.), B. Everett Jordan (D-N. C.), and Thomas H. Kuchel (R-Calif.); Dr. Evron M. Kirkpatrick, executive director of the American Political Science Association; and Randolph A. Hearst, trustee of the William Randolph Hearst Foundation, which is footing the bill.

"It will not be a sightseeing tour," says Mr. Hearst, whose grandfather once represented California in the Senate. "It will be an educational adventure."

Capital Classroom.—First nighters at Washington's National Theatre were startled, at one opening night last fall, when 146 high-school seniors from Sayreville, N. J., suddently rose and filed out of the balcony before the curtain fell on Act I. Their principal, who bought the tickets without knowledge of the play, didn't find Norman Krasna's *Sunday in New York* suitable for the teenagers she was chaperoning on a two-day visit to the Nation's Capital. In rebuttal, the management's press agent happily told reporters: "It's the most normal little sex comedy you've ever seen."

This dramatic episode illustrates the perils inherent in a class trip to Washington, or any other metropolis. Fortunately, very few of the more than 600,000 junior- and senior-high-school students who visit Washington each year even get into the most minor kind of trouble, much less the newspapers. But is this trip really necessary? Do the visiting students "See Your Government in

Action," as the Metropolitan Washington Board of Trade promises in its colorful brochures?

College groups usually come for a week or two to scheduled appointments and sight-seeing, the minimum they believe is required to gain more than a confused blur of hasty impressions. Enrolment in the American University's Washington Semester yields some familiarity with official Washington, as well as transferable credits. Then what can younger students learn in Washington on their first visit, which averages four days?

Quite a lot can be learned, and time and money saved, if the trip is properly planned. (The School Service Department of the Washington Convention and Visitors Bureau, 1616 K Street, N. W., Washington 6, D. C., can be of some help.) Since the tourist tide is highest in spring and summer, Washington hotel rates are lower during the fall and winter, and most will wait until the end of the school year for full payment.

Charter flights should be considered, too, since their higher cost may well be offset by the expense of meals and lodging while en route by slower means. Groups of 40 or more coming from Boston or New York can fly nonstop via Eastern Airlines for $19 and $11 each, respectively, including tax. Air travel at this special one-way rate permits at least one extra day in Washington.

Unless your classes come in May, they will miss the 28 free evening concerts by the National Symphony Orchestra, now in their seventh year through the generosity of Mrs. Herbert A. May. But everything else is available all year, and nearly everything is free. Tours of the Capitol are conducted every day, though it may not be possible during the latter part of the year to meet and be photographed with your Senator or Representative, who is likely to be either at home or travelling overseas when Congress is not in session. At the Supreme Court, which sits only from October through May, conducted tours are available throughout the year.

Most popular are the lecture-tours of the FBI, White House, Smithsonian Institution, Voice of America, and Bureau of Engraving and Printing. Perhaps more educational and certainly less crowded are the Library of Congress, Folger Shakespeare Library, National Archives, and the National Gallery of Art, which offers both conducted tours and individual electronic devices that whisper recorded lectures as you draw abreast of each masterpiece.

Often overlooked are the unique educational opportunities offered here by the Naval Observatory, which can be visited by day or night; Dumbarton Oaks, Harvard's museum of Byzantine art; the Pan American Union, a regional UN complete with simultaneous translation facilities; the Islamic Center, probably the only mosque in this country prepared to welcome visitors; the Phillips Gallery, a superb modern art collection; and the several bookstores of the Government Printing Office, the world's largest paperback publisher.

After 175 years of foreign policy, the State Department recently decided to start regular briefings for ordinary citizens: every Monday, Wednesday, and Friday at 9:30 A.M., no tickets required. Unfortunately, many equally interesting federal agencies still do not offer any regular lectures, exhibits, or tours for either adults or students—including, paradoxically, the Department of Health, Education, and Welfare.

Travelling Exhibits. — For those who can't visit the National Gallery of Art and those who would enjoy an unhurried view of some of its treasures, the Gallery offers three travelling exhibits of large framed reproductions with descriptive labels which may be borrowed by teachers.

"Ten Portraits in the National Gallery" illustrates different kinds of portraiture, from the early Renaissance to the Post-Impressionist period, including pictures by Botticelli, Roberti, van der Weyden, Bellini, Holbein, Boucher, Romney, Goya, Renoir, and van Gogh.

"Ten Landscapes in the National Gallery" traces the development of landscape painting since the Middle Ages in outstanding examples by Duccio, Gerard David, Giorgione, Rembrandt, Turner, Constable, Homer, Monet, Cezanne, and Rousseau.

"Backgrounds of Modern Painting" consists of twelve collotype reproductions illustrating important artistic trends of the last 100 years, including works by Monet, Renoir, Cassatt, Cezanne, van Gogh, Gauguin, Modigliani, Matisse, and others.

The exhibits travel in crates which weigh about 100 pounds. The borrower pays the round-trip shipping costs, which are not high if motor freight is used and the shipment marked "Educational Material, Printed Matter." To schedule a one-month booking, write to the Extension Services, National Gallery of Art, Washington 25, D. C.

The National Gallery also lends slide lectures, sets of 2" x 2" color slides, which are mailed to borrowers free of charge. These include "700 Years of Art" (60 slides), "Backgrounds of Modern Painting in France" (40 slides), "Five Techniques of Paintings" (40 slides), "The Christmas Story in Art" (40 slides).

Unusual Quote.—"I told some of my colleagues yesterday that I was really beginning to get interested in education." This is taken from the farewell remarks by retiring U.S. Commissioner of Education McMurrin to his staff. He went on to say, "I don't want that to sound like it does sound. But I have . . . . become intensely interested in the major issue of education, and I'm quite sure that these will always remain a very basic part of my life's commitment." ●

A.R. Reading Experiment

AN experiment to teach reading using a new Augmented Roman, or A.R., alphabet is now in its second year in selected English schools. Last year the experiment was conducted in 24 English schools with 1,000 pupils. The success of the project prompted educational authorities to start 1,500 more five-year-olds on A.R. reading this fall.

Augmented Roman is designed to improve the techniques of teaching reading by simplifying such sounds as the tangle of P's and Q's in the standard alphabet. It eliminates the Q's and X's and adds 19 new letters, for a total of 43 letters. Although A.R. is thus longer than the regular alphabet of 26 letters, it avoids the confusion of conventional letters, which are combined in more than 2,000 ways to represent the approximately 40 basic sounds of the English language.

Augmented Roman is not a revised spelling plan, but an effort to see whether children can learn to read faster if the spelling problems can be postponed. The teachers believe that the temporary use of the alphabet will help children learn to read in half the normal time and will eliminate all reading failures. When the beginner has achieved fluency in reading in this especially easy form, he will switch to conventional story books.

The children selected to take part in the experiment represent a normal range of intelligence in classes from various parts of England. They will be compared with control groups learning to read in the conventional manner. The Reading Research Unit at the University of London Institute of Education and the National Foundation for Education Research are sponsoring the experiment. Although no authoritative results will be compiled for three years, teachers who have used the new alphabet are enthusiastic.

The alphabet was devised by Sir James Pitman, grandson of Sir Isaac Pitman, the shorthand pioneer. Sir James says the basis for A.R. actually is a spelling reform designed in 1844 by Sir Isaac.

New Record Enrolment

APPROXIMATELY two million more students enrolled in the nation's public and private schools from kindergarten through college this fall than in 1961, according to estimates from the U. S. Office of Education.

Enrolment in the schools, increasing for the 18th consecutive year, is expected to reach a new all-time high of 51.3 million in the 50 states and the District of Columbia in the 1962–63 school year. In the 1961–62 school year the enrolment was 49.3 million.

The estimated enrolment includes 35 million pupils in the elementary schools (through Grade 8), an increase of 800,000 over last year. In Grades 9 through 12, the increase is estimated to be 900,000—from 10.8 million to 11.7 million.

In institutions of higher educa--tion, both public and private, an enrolment increase of 300,000—from 4.3 million to 4.6 million—is anticipated. The Office of Education states that as yet the steadily mounting college enrolments should be credited largely to the fact that there is a growing interest in attending college rather than to higher birthrates. Statisticians anticipate that the first really sharp increase in college enrolments will come about the start of the 1965–66 school year.

New Organization

THE formation of a new nationwide organization to promote, develop, and produce new courses for the curriculum of the public schools was announced just before the opening of school this fall. Called the Council for Public Schools, the new organization will take over from the long-established Massachusetts Council for Public Schools such research and development activities which are of national scope and significance. Its headquarters will be in Boston.

Among the activities to be carried on by the new Council will be "Parlons Francais," the series of French courses for elementary grades, originated by the Massachusetts Council for Public Schools. Other projects being developed are a Spanish course for elementary grades, a newly conceived course in basic geography for the first three grades, and a series of courses at the elementary-school level for teaching English as a second language in foreign countries. All these courses will be subject to intensive testing and experimentation in various parts of the country before they are made available for general use in schools.

Graham T. Winslow is chairman of the board of directors of the new Council. Members of the National Advisory Committee of the Council include: James G. Conant, Francis Keppel, Roy E. Larsen, Ralph Lowell, Wilbur Schramm, and Paul Woodring.

Teach Civil Liberties

THE Civil Liberties Educational Foundation, New York City, has announced plans to spend $150,000 in a program designed to get better teaching of civil liberties in social-studies courses in the next two years.

The program was instituted when a survey revealed that there were serious deficiences in ideas about the Bill of Rights and personal freedoms among high-school students. While American history is taught in virtually all schools, teachers have confessed to spending as little as two hours on civil liberties in a year's history course. High-school students, it was found, too often see nothing wrong in censorship, wire-tapping, and other limitations on freedom of the press and of speech.

The Foundation is planning its program in cooperation with the National Council for the Social Studies. It includes preparation of bibliographies on suitable reading material on civil liberties, a talk on teaching civil liberties at the annual convention of the National Council for the Social Studies, and a series of six regional teacher-training summer workshops in 1963.

The essence of the Foundation's proposals is that freedom must be understood to be preserved.

Integrated Readers

In 12 schools in Detroit's "culturally disadvantaged" areas, an experiment is being conducted this semester to determine whether children can learn to read better from books which are written with their background in mind.

Written by a team of Detroit teachers especially for the multicultural urban population, the books have mostly Negro characters, have situations familiar to city living, and have words that the inner-city children of migrant families are most likely to hear at home. The writers taped conversations with several hundred children to distill out the 100 words they used most. Approximately 70 percent of the words used didn't appear at all in the three leading series of first-grade readers.

New Math Tests

In view of the new trends in school mathematics which are outmoding present standardized mathematics tests, the Educational Testing Service's Cooperative Test Division has announced the development of new achievement tests in arithmetic, algebra, and geometry.

The new tests, according to Scarvia B. Anderson, Cooperative Tests editor, have been designed to reflect some major shifts while continuing to measure important aspects of traditional mathematics. "While some of the new emphases in language and content are in the new tests," Dr. Anderson said, "stress is placed on the student's understanding of mathematical ideas and on his ability to reason with insight."

The arithmetic tests are designed for Grades 7–9. Algebra tests have been prepared for both elementary and intermediate classes. Geometry tests are for the appropriate high-school level.

Carrels for Students

An NEA survey of educational innovations this year in 70 of the wealthier suburbs of the country revealed a new term being frequently used—carrel. This refers to the cubicles somewhat like private offices that some schools are installing for the use of individual students when engaged in independent study. Shaker Heights, Ohio, Munster, Ind., and Winnetka, Ill., are among the communities which are providing carrels for student use this year.

The NEA survey also showed a trend in the adoption of courses in humanities and world culture that are usually thought of as being at the college level. One community reported a new course in logic, surely a college subject.

Such experiments as team teaching and the ungraded classroom have become almost conventional practices in many of these wealthy suburbs.

Color in Geographic Bulletin

THE National Geographic Society has announced that this year it is adding full color pictures and four more pages to each issue of its *Geographic School Bulletin*. The Bulletin, issued weekly starting in October, is written and designed for use in schools. It presents articles and features on the wonders of nature, scientific developments, and the various countries of the world.

Children's New TV Program

A NEW weekly television program, designed to stimulate the interest of youngsters five to 11 years old in language, music, mathematics, social studies, and science, will be offered on the NBC-TV network starting on October 13.

The full hour program, "Exploring" will have as host Dr. Albert R. Hibbs, a nationally known scientist who for the past five years has been a guest teacher of mathematics, general science, and related subjects in elementary and junior-high schools in Los Angeles, Santa Ana, and Pasadena.

Each weekly program will be divided in five areas of exploration, it is announced. Language, music, and mathematics will make up the first half hour and the material presented will be of special interest to the younger children in the age group. The second half hour will be devoted to social studies and science. Featuring many departures from traditional educational programs for children, the series will use colorful puppets to teach mathematics, animation to explain the history of words, and the dance to make certain areas of social studies come alive. Guests for the fields of arts and sciences will make personal appearances.

DATES OF THE MONTH:

Oct. 8-12, National Council on Schoolhouse Construction, Denver, Colo.

Oct. 10-13, Department of Rural Education and Division of County and Rural Area Superintendents, NEA, Wichita, Kan.

Oct. 15-19, Association of School Business Officials of the United States and Canada, Dallas, Tex.

DATES OF THE COMING MONTHS:

Nov. 4-5, Association of Urban Universities, Louisville, Ky.

Nov. 11-17, American Education Week.

Nov. 21-24, National Council for Social Studies, Philadelphia, Pa.

Nov. 23-24, National Council for Geographic Education, Chicago, Ill.

Dec. 3-7, American Vocational Association, Milwaukee, Wis.

Feb. 9-13, National Association of Secondary-School Principals, Pittsburgh, Pa.

Feb. 13-16, American Association of Colleges for Teacher Education, Chicago, Ill.

Feb. 16-20, American Association of School Administrators, Atlantic City, N. J. •

New Educational Materials

The Amidon Elementary School. Carl F. Hansen. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1962. Pp. xii + 252. $6.95.

This is a report, after two years of operation, on the Amidon Elementary School Plan (an experiment with a curriculum organized by basic subject fields with a strong emphasis on subject matter, specific planning, and administrative control of instruction). The experiment, an object of controversial debate among educators and laymen, has received wide publicity. This book should intensify the debate and increase the publicity on public elementary-school education.

This report by Carl F. Hansen, superintendent of Schools, District of Columbia, relates the story of the development of the plan, its initiation, and an evaluation of the program.

Noting that "something of the autobiographical will be detected in this volume," Hansen states his personal views on many issues and problems in education today. In the introduction, Hansen writes that announcement of the Amidon concept brought charges of "treason to education," and he takes issue with what he identifies as a view that "a superintendent has a special responsibility to defend existing practices."

"What the superintendency needs is the kind of person who develops his own ideas about education through independent thinking and then states his views so that everybody can understand them. . . . Because of my strong convictions about what education ought to be, I refuse to be nothing more than an apologist for the *status quo*."

The Story of Education. Carroll Atkinson and Eugene T. Maleska. Philadelphia: Chilton Books, 1962. xiii + 492. $10.00.

An informative account of the evolution of education, this volume traces the development from Oriental, Hebraic, Spartan, Athenian, and Roman cultures, noting the influences of philosophers and critics, and identifying the influences as they are evident in American education today.

The emphasis is on American education, including an extensive account of current trends and issues in the schools, covering the topics of racial integration, federal aid to education, teachers organizations (with a section dealing with teacher strikes), and touching on experiments with instruction influencing education today.

Carroll Atkinson is a former teacher, professor, and editor of educational publications, including the *Dictionary of Education*. Eugene T. Maleska is coordinator of teacher recruitment, New York City Board of Education.

Fringe Benefits for Public School Personnel. Jack H. Kleinmann. New York: Bureau of Publications, Teachers College, Columbia University, 1962. Pp. x + 178. $4.95.

This is a comparative study of principles and practices in education, government, and private employment that attempts to clarify issues concerning the economic status of public-school personnel.

The content is organized around the four stated specific purposes which underlie the discussion:

To survey and compare fringe benefits provided salaried personnel in education, government, and private employment; to describe and analyze benefits which might feasibly be included in teacher personnel programs; to recommend the benefits which might realistically be provided public-school personnel; and to present a general point of view about benefit programs.

Problems and issues related to staff benefits are discussed, as well as considerations that must be taken into account in developing programs.

Negro Education in America—Its Adequacy, Problems, and Needs. Edited by Virgil A. Clift, Archibald W. Anderson, and H. Gordon Hullfish. New York: Harper & Brothers, 1962. xxiii + 315. $5.95.

This is the sixteenth yearbook of the John Dewey Society. It is a comprehensive analysis of education for the American Negro. The book is divided into four parts, with individual sections prepared by 14 Negro and white educators analyzing the significance of the education the Negro is receiving and what the outlook appears to be for the future.

Part I provides background by covering various programs of Negro education, past and present. The second section is on educational opportunity, examining current inequities and noting some distinctive achievements.

Part III, "The Changing Situation," explores positive and negative attitudes of the people and their governments with respect to the 1954 Supreme Court Decision. The final section discusses future goals, and suggests how increased federal legislation can promote full educational opportunity.

OTHER MATERIALS RECEIVED: ELEMENTARY

The Hidden You: Psychology in Your Life. Arthur Alexander. **Our Tiny Servants: Molds and Yeasts.** Bernice Kohn. **Jets.** Charles Sapin Verral. **New Ways in Math.** Arthur Jonas. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. 63, 62, 70, and 70, respectively. $2.95 each.

A Train for Tommy. Edith Tarcov. **Arty the Smarty.** Faith McNulty. **Billy Brown: The Baby Sitter.** Tamara Kitt. **Fly Away at the Air Show.** Leone Adelson. **The Monkey in the Rocket.** Jean Bethell. **Surprise in the Tree.** Sara Asheron. New York: Grosset & Dunlap, Inc., 1962. Pp. 61 each. $1.18 each. Part of the Easy Readers series for kindergarten to third grade.

Ojibway. Marion Israel. **A Dog Team for Ongluk.** Terry Shannon. **Nika Illahee.** Mary M. Worthlake. Chicago: Melmont Publishers, 1962. Pp. 32 each. $2.50.

Take Shapes, Lines and Letters; New Horizons in Mathematics. Jeanne Bendick and Marcia Levin. New York: Whittlesey House, McGraw-Hill Book Company, Inc., 1962. Pp. 80. $2.75.

Berlitz German for Children: Cinderella and Sleeping Beauty. Edited by staff of The Berlitz Schools of Languages. New York: Grosset & Dunlap, 1962. Pp. 62.

Our Country's Story. Frances Cavanah. Chicago: Rand McNally & Company, 1962. Pp. 64. $2.95.

Volcanoes in Action; Science and Legend. Lynn and Gray Poole. New York: McGraw-Hill Book Company, Inc., 1962. Pp. 79. $3.00.

Elly the Elephant. Norma Simon. New York: St. Martin's Press, 1962. Pp. 40. $2.25.

Twin Otters and the Indians. Inez Hogan. New York: E. P. Dutton & Company. Pp. 41. $2.25.

A Book of Canadian Animals. Charles Paul May. New York: St. Martin's Press, 1962. Pp. 115. $2.95.

Young People's Science Encyclopedia. (20 Volumes.) Chicago: Childrens Press, Inc., 1962. $44.95 set. Includes more than 3,000 entries, 2,500 illustrations in color, and 200 science projects and experiments.

Once There Was a Kitten. Janet Konkle. **City Boy, Country Boy.** Miriam Schlein. Chicago: Childrens Press, 1962. Pp. 30 each. $2.50 each. Two titles in the Reading Laboratory Book series.

SECONDARY

English for Maturity; English in the Secondary School. David Holbrook. New York: Cambridge University Press, 1962. Pp. xii + 255. $3.95.

How to Study. A 16-page scriptographic booklet available from Channing L. Bete Co., Inc., Greenfield, Mass. $.75. Discounts in quantity.

Reorganizing the High School Curriculum. (Third Edition.) Harold B. and Elsie J. Alberty. New York: The Macmillan Company, 1962. Pp. xiv + 512. $6.50.

Find Your Science IQ. Robert L. Gantert. New York: John F. Rider Publisher, Inc., 1962. Pp. vi + 138. $3.45.

American High School Administration. (Third Edition.) David B. Austin, Will French, and J. Dan Hull. New York: Holt, Rinehart and Winston, Inc., 1962. Pp. viii + 590. $7.00.

Going Places with Mathematics. (Second Edition.) M. Peters. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. 358. $3.92.

Psychology for Life Today. Charles R. Foster. Chicago: American Technical Society, 1962. Pp. 430. $4.50.

Masters of the Scalpel: The Story of Surgery. Sarah R. Riedman. Chicago: Rand McNally & Company, 1962. Pp. 320. $4.25.

Typing Speed Builders. Mary E. Connelly and Leonard J. Porter. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. 60. $1.52.

Major Art in the Academic High Schools. Curriculum Bulletin No. 11, 1960–61, New York City Board of Education. Pp. 338. Available from New York City Board of Education, 110 Livingston St., Brooklyn 1, N.Y. $3.00.

COLLEGE

A Guide to Study Abroad: University, Summer School, Tour, and Work-and-Study Programs. John A. Garraty and Walter Adams. Manhasset, N.Y.: Channel Press, Inc., 1962. Pp. 288. $5.95.

Guiding the Physically Handicapped College Student. Herbert Rusalem. New York: Bureau of Publications, Teachers College, Columbia University, 1962. Pp. xi + 151. $2.75.

Administrative Practices in University Evening Colleges. Roger DeCrow. Chicago: Center for the Study of Liberal

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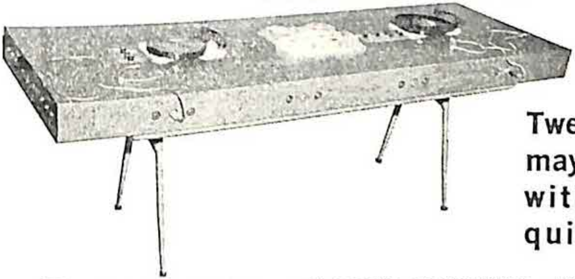

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Education for Adults, 1962. Pp. vi + 74. $1.00.

Guidance

Readings in Guidance: Principles, Practices, Organization, Administration. Edittd by Lester D. and Alice Crow. New York: David McKay Company, Inc., 1962. Pp. xii + 626. $3.95, paperbound.

Teaching in American Schools; A Handbook for the Future Teacher. T. M. Stinnett and Laurence D. Haskew. New York: Harcourt, Brace & World, 1962. Pp. vii + 184. $2.00, paperbound.

Counseling: Readings in Theory and Practice. John F. McGowan and Lyle D. Schmidt. New York: Holt, Rinehart and Winston, Inc., 1962. Pp. xiv + 623. $7.95.

General

The Schools of West Germany. Theodore Huebener. New York: New York University Press, 1962. Pp. xii + 181. $4.75.

Eclectic Philosophy of Education. (Second Edition.) John S. Brubacher. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. viii + 560. $6.95.

Toward World Literacy; The Each One Teach One Way. Frank C. Laubach and Robert S. Laubach. Syracuse, N.Y.: Syracuse University Press, 1962. Pp. xiv + 335. $4.75.

Handbook of Mathematical Tables. Edited by Samuel M. Selby *et al.* Cleveland, Ohio: Chemical Rubber Publishing Company, 1962. Pp. x + 579. $7.50.

Practical Parliamentary Procedure. (Third Edition.) Rose Marie Cruzan. Bloomington, Ill.: McKnight & McKnight, 1962. Pp. xiv + 219.

Everyman's Dictionary of Pictorial Art. Vols. 1 and 2. Edited by William Gaunt. New York: E. P. Dutton & Company, 1962. Pp. xx + 392 and v + 391. $6.50 each volume.

Psychological Statistics. (Third Edition.) Quinn McNemar. New York: John Wiley and Sons, Inc., 1962. Pp. vii + 451.

Comparative Educational Administration. Edited by Theodore L. Reller and Edgar L. Morphet. Englewood Cliffs, N.Y.: Prentice-Hall, Inc., 1962. Pp. x + 438. $7.95.

Let Them Write Poetry. Nina Willis Walter. New York: Holt, Rinehart and Winston, 1962. Pp. x + 179. $1.95. For teachers of children from kindergarten through high school.

Student Evaluation of Teaching and Learning. Ray H. Simpson and Jerome M. Seidman. Washington, D.C.: American Association of Colleges for Teacher Education, 1962. Pp. vi + 38. $.50. Items for teacher selfevaluative instruments.

Handbook of Private Schools. (43rd. Edition.) Boston: Porter Sargent, 1962. Pp. 1330. $10.00.

Education for Freedom and World Understanding. U.S. Office of Education bulletin OE-10016, 1962. Pp. vii + 62. Available from U.S. Government Printing Office, Washington 25, D.C. $.30.

Education and the Disadvantaged American. Washington, D.C.: Educational Policies Commission, NEA, 1962. Pp. 39. $.35, paper; $1.25, cloth.

A History of Russia. John Lawrence. **The Changing Society of China.** Ch'u Chai and Winberg Chai. New York: The New American Library, 1962. Pp. 320 and 253, respectively. $.75 each.

Mathematics in Everday Things. William C. Vergara. **The Chemicals of Life.** Isaac Asimov. New York: The New American Library, 1962. Pp. 300 and 140, respectively. $.75 and $.60 each. Two new paperbacks in the Signet Science Library series.

The Mentor Book of Major American Poets. Edited by Oscar Williams and Edwin Honig. New York: The New American Library, 1962. Pp. 535. $.95, paper.

So You're Going to Be a Teacher. Robert L. Filbin and Stefan Vogel. Great Neck, N.Y.: Barron's Educational Series, Inc., 1962. Pp. 141. $1.25, paper; $2.95, cloth.

Main Currents in the History of Education. Edward J. Power. New York: McGraw-Hill Book Company, Inc., 1962. Pp. ix + 522. $7.50.

Learning to Teach in the Secondary School. William L. Carter, Carl W. Hansen, and Margaret G. McKim. New York: The Macmillan Company, 1962. Pp. xii + 432. $6.50.

Psychology in Teaching. (Second Edition.) Henry P. Smith. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. xiv + 498. $6.95.

The Yearbook of School Law 1962. Lee O. Garber. Danville, Ill.: The Interstate Printers & Publishers, Inc., 1962. Pp. 234. $3.50, paper; $4.50, cloth.

Intelligence and Experience. J. McV. Hunt. New York: The Ronald Press Company, 962. Pp. ix + 416. $8.00.

A Manual on Certification Requirements for School Personnel in the United States. W. Earl Armstrong and T. M. Stinnett. Washington, D.C.: National Commission on Teacher Education and Professional Standards, NEA, 1962. Pp. vii + 219. $4.00.

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Volume XXVIII NOVEMBER 1962 Number 3

How Will They Affect the Teacher's Role?

Teaching Machines: Threats and Promise

HARRY S. BROUDY

In Educational Theory

AUTOMATED instruction was as inevitable as the vending machine and the automatic toaster. At the heart of the machine age is the possibility of speedy replication of items in large quantity, whether in foods, shoes, or instructional materials. When the instruments of technology and design efforts are applied to the education process, a teaching performance by the use of machines is replicable, theoretically at least, without limit.

As with all products of mass production, the teaching-machine package can contain few or many blessings. It can make a high-grade teaching performance available to the multitude. Unfortunately, faults built into the package as well as the virtues are multiplied by the number of copies and, even more important, the possibility of producing and selling large copies determines what qualities will be built into it. Hence the teaching machine is a source of great promise and real threats.

Harry S. Broudy is Professor of Education, University of Illinois, Urbana. Reported from Educational Theory, *XII (July 1962), 151–56.*

The first and perhaps the most common threat perceived is that of role destruction or impairment. Teachers, like linotypists, refinery workers, and coal miners, fear the displacement potentialities of automation.

Teachers are not alone in this apprehension. Some university professors are also uneasy at the prospect of machine instruction. To be told—not infrequently by a clever young man—that a machine can do better what it has taken him a lifetime to achieve, is no boost for a professor's ego. The denials of the teaching-machine promoters that this is their intent are not wholly convincing.

One variant of the role-impairment fear is the possibility that administrators will use the machine as an excuse to increase the pupil-teacher ratio. No doubt this suspicion does the administrator an injustice. Nevertheless, expensive machinery has usually been justified by a promise of lower unit costs. It would be gratifying but surprising if this argument were not used on and by school boards.

A different type of threat is expressed in the fear that quality of instruction will suffer from use of machines. Among variants of this fear are: pupils and teachers will dislike and will resist use of machines; pupils will be bored; machines will reduce learning to rote learning; machine instruction will destroy creativity in the pupil; and certain personality values resulting from the live teacher-pupil relation will be lost in machine teaching.

Can or will the teaching machine displace the live teacher? In an obvious sense, the answer has to be "yes," for to some extent the machine will be doing what a live teacher might be doing. There would be no profit in machines if they did not somehow replace human labor. The practical reassurance of the teacher lies in the prospect of so large an increase in the school population that the displacement effect will be negligible.

With respect to impairment of the teacher's role, there is the very possible loss of autonomy of the teacher over the materials and methods of instruction. Just as the system-wide adoption of a textbook limits what the teacher can and cannot do in the instructional program, so will a system-adopted program of machine instruction.

The teacher's fear of displacement and ego damage is real and to some extent warranted. Of the two, the fear of role impairment is the more serious, because whether the live teacher is to be an arch strategist using the machine program, or whether the teacher is to become a machine operator or technician, the teacher as producing the total instructional act would, if the machine were as successful as it can be, no longer exist. To the extent, therefore, that a teacher's competences are simulative by the machine, he will be faced with the need for coming up with new competences or be degraded.

As to the second class of fears, limited experimental evidence demonstrates that students after an initial apprehensiveness accepted the machines and were willing to work at them for 45-minute up to 1½-hour periods.

Information available also indicates that teachers using the machines progressively had more time for noninstructional activities in the classroom than on the orthodox schedule. From this, one could expect teacher hostility to be reduced. Time, habit, and success could eventually render the machine no more threatening to teacher mien than the typewriter, textbook, or map.

Several observations can be made about the fear that the machines would reduce education to rote learning. The most important is that a large amount of school learning has been, is, and will be rote.

Aside from the fact that the machines need not be limited to rote learning, I regard the superiority of the machine in rote learning as a virtue rather than a deficiency.

THE POSITIVE SIDE

On the positive side, the most significant sign to me is that machine programs that produce efficient learning—programs whose steps of progress are small and entail relatively slight changes from step to step—tend to negate individual differences in IQ. This is a startling finding, because it seems to show that scholastic aptitude is important when teaching is poor and not so important when teaching is good. In other words, the bright student is the one who learns in spite of poor teaching and the mediocre student is the one who does not. Is scholastic aptitude a genic trait or is it the result of learning how to learn in spite of poor teaching?

If these results can be corroborated and elaborated, we shall have to reconstruct our thinking about the pedagogical problem of individual differences. A light may be shed on these and kindred questions by use of the teaching machine as a research tool. Perhaps this alone justifies the encouragment of its development.

Another promise is instructor liberation from the routines of drill and evaluation that have embittered even the best of teachers. The repeated frustration of reading final exams and finding how much has been mislearned or not learned loses, after a number of years, its power to shock but never its power to hurt. If teachers cannot appreciate this promise of liberation from endless and often fruitless drudgery, then it is difficult to generate much sympathy for them.

Next is the promise that through programed instruction we can finally make good on the ideal of differentiated instruction for the individual student. Certainly the possibilities are there and the benefits of realizing them incalculable. On the other hand, if good machine instruction tends to level out these differences, then the need for differentiation might well decrease as efficiency of the machine increases.

There is enormous value in the possibility of having on the machine a written record of the pupils' performance at every step of the instruction. Diagnosis and evaluation can now proceed on a volume of data far more precise than anything we have hitherto had available. And since presumably we can build machines that will classify these data and treat them in statistically sophisticated fashion, the prospect is fair indeed.

In an institutional sense, the machine can make possible a personnel differentiation among program planners, designers, makers, users, and interpreters. The term "teacher" hitherto used to cover all these functions can be expected to achieve precision by differentiation of function. The technician level can be differentiated from the professional level; the custodial, clerical, guidance, and other elements in the teaching complex can be rewarded differentially and training for them specialized. This will carry with it all the advantages and disadvantages of specialization.

Collaterally, this trend will permit us to abandon the search for that will-of-the-wisp, the good teacher or its definition. The machine, by helping us to identify different phases of the teaching transaction, will give us a criterion of efficiency for each one of them—something we have been unable to achieve for teaching as a whole.

The good teaching machine, once and perhaps for all, destroys the best excuse for not seeking the larger and more personal outcomes of teaching, viz., that one has to devote so much time to the mechanics of instruction. And yet one must reiterate the danger that when teaching has been split into specialities, the number of people whose life as a whole can serve in school as a model, as a therapist, as a partner in dialogues about the highest matters in human life may be reduced. Will there be room for such persons in the teaching enterprise? Once specialization sets in, the generalist fights a rear-guard action that leads to ultimate defeat. We have not learned how to enjoy the blessings of automation without sacrificing human values in any area of activity. Is there reason to believe that we can do otherwise in automated instruction?

As yet the signs are not very promising. In taking over the theories and devices that have worked so well in industry and war, our leaders in academic research have too often also taken on the value coloration of the corporation man of C. Wright Mills' "power elites." Their gods have become his gods; their standards of success, his standards; their measures of reward, his measures; their language and ritual, his language and his ritual. And this has gone so far that anyone who says this out loud on a university campus is automatically rendered suspect, unless he himself has succeeded by the standards that he proposes to question.

OUTWIT THE MACHINE AGE

And yet we have no choice but to try to outwit the machine age; to seek therein the potentialities for human values that it undeniably has. One might hope that we in the educational profession could take the lead in finding a new integration to unify the differentiations that mass production technology entails. We shall not do so, however, if we merely ape the industrialist and the businessman and in the name of efficiency, fractionate further the totality of values that constitute the life syndrome. Because we are moving closer and closer to the mechanics and methods of the market place, let us not adopt its outlook on life itself. If we come to prize only what it prizes and reward only as it rewards, then all the real promises of the machine will come to nothing.

●

Five Tasks of the Future

Teaching in the Sixties

FRANCIS S. CHASE

In Tomorrow's Teaching

I AM aware of my inability to assay the forces which will shape education in the next 10 years, or even to visualize the manner in which new knowledge and new instrumentalities may be linked to make education more productive in the realization of our hopes.

But we undoubtedly have before us a considerable number of interrelated tasks. One task is to get our aims clearer than they now are. I don't mean simply getting an agreement as to priorities among the usually stated aims of education. I mean to come, on the basis of discussion, debate, and reflection, to a better definition of the kind of man that we would like to produce in schools—and to a better definition of the kind of society we need to bring out the best in man. I believe that in the nature of man is embedded an impulse to know what is to be known: to put knowledge into the service of understanding and understanding into the service of man. The business of education is to fan that impulse into a steady glow and to inculcate the will and the ability to nourish it throughout life.

Francis S. Chase is Dean, Graduate School of Education, University of Chicago, Illinois. Reported from Tomorrow's Teaching, *a report of a symposium sponsored by Frontiers of Science Foundation of Oklahoma, Inc., 10–15.*

In addition to clarifying the aims of education, we have the task of advancing understanding of human behavior and learning. There has been a great deal done in the social sciences; but, in my view, nothing very definitive has yet emerged.

Teachers and administrators often turn to the social sciences and say, in effect, "Out of your research tell us how to manage learning so that we can achieve desired results." So far, the only retort is, "Well, if you'll look at the research that's been done by certain psychologists and others, you'll begin to see something more about the nature of motivation. You'll soon be able to take a more sophisticated view of what's involved in learning." Then the teacher says, "Does this mean that I should start teaching mathematics with concrete materials, or should I start with abstractions?" And the psychologist says, "Well, there's still some debate about a matter of that kind."

Indeed there is; he has no answers that are immediately applicable to the task of the teacher.

Nevertheless, there are indications that we might be close to getting a better understanding of such things as motivation and the origin of purposing. Both biological and social scientists have been working in this direction.

A RESEARCH TARGET

The second target, then, is a research target. It requires an outpouring of resources different in kind and amount from those we have been applying to educational research. If billions of dollars were suddenly made available for educational research, I doubt that much real effect would result. We do not have enough scientists trained in rigorous research techniques and methodology to develop the necessary theoretical framework; to state problems in such ways that knowledge about learning can be advanced. If additional resources were focussed on the training of research personnel we could quickly build up the qualified personnel so that the cumulative effect would begin to tell rather quickly.

This means that the states and Congress must step up appropriations for research and they must also make funds available for ways which enable groups of qualified researchers to map out attacks on significant problems and to proceed toward solutions step-by-step over a long period of time.

A third task is to reorder our knowledge so that we really get hold of our great cultural heritage in a way that we can identify fruitful concepts and set up situations in which these concepts can be acquired.

The body of knowledge grows daily. People who have thought most deeply about this reordering task feel that the only hope is to treat knowledge with relation to structures into which it has been built and with relation to the disciplines which have been applied to building it.

This view runs counter to much that was incorporated in integrated curriculums, core curriculums, and similar efforts.

Until we have groups of scholars who are skillful in building new interdisciplinary structures, it may be useful to stick fairly close to knowledge structures that we now have. This doesn't mean that relationships among different fields of knowledge cannot be made evident to the learner; but rather that making relationships evident may be another educational task.

Work of reordering knowledge for high-school studies is going forward. An extremely important pioneering understanding was the enormous effort poured into revising the physics curriculum, with gifted physicists, psychologists, high-school teachers, and others contributing. It was extremely expensive, with more than $5 million expended in the reorganization work.

Similar work, on a less expensive basis, is taking place in mathematics and the biological sciences. Soon, I hope, at least as much attention will be given to the social studies and to the humanities. Surely our need in these fields is no less.

A prime target should be to advance this reordering of knowledge for educational purpose: to enable today's knowledge to be learned in such a way that the body of so-called factual knowledge is incorporated into appropriate structures, and that the learner acquires some appreciation of the modes of inquiry through which today's knowledge will be increased and revised from time to time.

MASTERING TECHNOLOGY

A fourth task is to master our technology. Fortunately, few speak as if a single device will provide easy answers to the tough problems of education. Many are concerned primarily with what technical developments can contribute to learning objectives, and how the new developments may be related to other resources for learning.

It is worth mentioning that, while we are experiencing the development of the tools and accessories of educational technology, we haven't learned yet to make effective use of the technology of printing. We still run schools much as they were operated under the oral tradition, when the teacher was the transmitter of all knowledge and had to communicate his knowledge to a group within sound of his voice. Intelligent and creative participation in the printing revolution alone will help education to move deliberately toward what we've long talked about: individual pacing; individual goal-setting; opening a road for the learner to proceed as far as he wants in any field of knowledge.

The fifth task is to develop personnel qualified to put together all available and potential resources necessary to make education more adequate to the demands of our age. Everybody must be pretty well aware of the facts which call for an education far beyond what has yet been achieved by any nation.

The challenge facing this nation is to find ways of organizing human effort to meet a challenge posed by what appears to us to be a dehumanized ideology: a great national adversary espousing a monolithic approach—one which moves "ahead" at whatever cost to human life and human integrity. Our task is to somehow create a situation in which individual initiative is free. We must try to contrive an educational system in which individuals are encouraged to sit together and to solve problems—a system in which individuals bring to bear on these problems all the accumulated knowledge Western and non-Western cultures can provide.

Every nation on earth is struggling with the same problem. Though there are great weaknesses in our education, we have more on which to build than any nation in the world. We need not hesitate to move as we develop better ways through which to realize our hopes. ●

Education's Problem Child—the Junior-High School

School in the Middle

MAURITZ JOHNSON, JR.

In Saturday Review

EVERY so often some indignant person prescribes major surgery for the American educational enterprise. More often than not the object of the incision and derision is the junior-high school.

In an atmosphere of such dire threats, fervent supporters of the junior-high school brook no criticism of their beloved institution, however valid it may be. But, while detractors who advocate decapitation to cure a headache are of scant help to the patient, neither are his well-intentioned friends who call the headache an illusion or a normal condition.

In quantitative terms the junior-high-school movement has been a success. An American invention, dating from the first decade of this century, the number increased from fewer than 400 in 1920 to close to 5,000 today.

The idea behind the movement is to create asylum by establishing a special environment within this "transition school for early adolescence" in which pubescence can be experienced without trauma or trepidation. The forbearance of understanding teachers and the comfortable camouflage of the peer group (all of whom are in the same boat), facilitate the rapproachment of the sexes, the learning of new social skills, the exploration of bodily changes, and tolerant acceptance of ambivalent vacillation between childish dependence and brash assertiveness.

Apparently, the leap from childhood dependency to sophisticated individuality can rarely be accomplished in advanced Western societies without the intermediate use of the group of contemporaries as a transitory source of security. In a world in which adults expound one set of values and espouse another, in which schooling is prolonged and economic dependence is protracted, and in which social life is largely outside the family, the value of a haven the junior-high school attempts to be is readily recognized by many parents of this in-between age group.

To establish and maintain a jun-

Mauritz Johnson, Jr., is Professor of Secondary Education, Cornell University, Ithaca, New York. Reported from Saturday Review, *XLV (July 21, 1962), 40–42, 56–57.*

ior-high school which fully exemplifies the underlying idea is not easy, and many schools, it must be conceded, have been less than successful.

Some teachers view youngsters at this level as obnoxious nuisances, rather than as energetic, curious, fumbling individuals on the threshold of adulthood. Some junior-high schools provide social activities as formal and sophisticated as those in which high-school seniors engage. Some promote interscholastic athletic programs featuring strenuous physical exertion, intense emotional involvement, and often late hours. In some, the break from grade six to grade seven is as abrupt as it ever was from grade eight to grade nine. But these are shortcomings in human performance and institutional arrangements, rather than inherent defects in the idea, which in many schools is faithfully and skillfully practiced.

INTELLECTUAL DEVELOPMENT

But if the idea makes a certain amount of sense, it also gives disconcertingly little attention to the primary responsibility of any educational institution—intellectual development. Not that the intellectual aspect is ignored nor that it is incompatible with the concern for transition, but simply that the emphasis is not explicit and its nature is not defined.

It was not ever thus. When the first junior-high schools were established, the separation was not so much for social and emotional reasons as to make the *academic* initiation at grade nine easier for pupils. Approximately half of all high-school students were in the freshman classes of the conventional high schools, and that was as far as many of them ever got. It was *this* transition that was of greatest concern, not the one from grade six to seven or the one represented by pubescence. Indeed, if social and emotional considerations entered the picture at all, they revolved about protecting the younger children *from* the unwholesome influence of young adolescents in the seventh and eighth grades, not providing a haven for the new junior-high-school group.

Of late, that early concern for more suitable intellectual fare has been obscured. We may grant that the early vocational emphasis is less appropriate today because of longer compulsory education, diminished overageness as a result of changed promotion policies, and increased importance of intellectual development in a technologically more complex economy. But precisely because more people do need to develop further intellectually, it is all the more important that those who wish to improve the junior-high schools again turn their attention to this central area of the school's responsibility.

It is in regard to intellectual training that those who are inclined toward abolition of the junior-high school must also consider the consequences of such a step. To return grades seven and eight to an elementary-school status is unthinkable. Pupils at this level must have the intellectual resources which a secondary school is better able to provide—teachers prepared in specific subject areas; laboratory, library, studio, and shop facilities; and a sufficient concentration of pupils for differentiation in the curriculum consistent with the extensive range of abilities among pupils at this level.

The elementary school as we know it cannot provide these conditions. If the junior-high school were to be destroyed, the only other alternative would be to merge it with a senior-high school in a single six-year unit. What advantage this would offer in strengthening the lower three grades intellectually is unclear.

What is important is that we be clear as to *why* a middle school unit with identify of its own is desirable, and what it needs if it is to be a stable, viable unit.

Junior-high schools can be eliminated or altered, but pupils of junior-high-school age will remain, and who will teach them and what they will be taught are the significant questions.

Good junior-high teachers are even harder to come by than good elementary- or senior-high-school teachers. Teachers who enjoy teaching many subject areas cannot do so in junior high, nor can those who enjoy teaching advanced content do that. Perhaps this is inevitable in an "in-between" school.

Yet, there is a clue here that the curriculum at this level needs some careful rethinking and perhaps a complete overhauling. Typically, all seventh and eighth graders are required to take some nine or ten subjects for the same length of time, despite considerable differences in abilities, interests, and accomplishments. No matter that a pupil is weak in the fundamentals of arithemetic—his mathematics teacher, fresh from a course in partial differential equations, must teach him the types of life insurance and what enters into overhead in retailing, just as he must teach these topics to all the mathematically eager pupils awaiting the delights of algebra, geometry, and infinity.

GIANT STEP NEEDED

Many changes *are* being made. Some eighth-graders study algebra; foreign language, taught by the direct method, is offered in grade seven; set theory, Venn diagrams, and other modern mathematical topics have been introduced; and more science is being given. But these changes represent only creeping improvement, not the giant step that is needed. It is true that the quality of teaching makes or breaks any program, but a poor curriculum is a millstone around the neck of the best teachers.

A curriculum must obviously be planned with the maturity and requirements of the learners in mind, not the strengths and desires of teachers. Yet, if the nature of the curriculum affects the availability and enthusiasm of teachers, so, too, the improvement of curriculum depends in the main on the discontent and initiative of teachers.

In curriculum improvement, the administrators, laymen, and professors from both the scholarly disciplines and professional education can encourage and assist, but in the final analysis, teachers, singly and in groups, must do the job. What deters them is not so much their own shortcomings as certain beliefs which are prevalent in many communities: that the problems in the junior-high school are inevitable and unsolvable; that the junior-high school must forever remain as it has been; that some outside authority really decides all questions; that getting rid of the junior-high school altogether will take care of the problems.

Many specific suggestions could be offered for improvement of the curriculum at this level, but this is a matter on which those who are in a position to make the changes must work. It might be urged that the changes be in the direction of greater emphasis on significant ideas as opposed to inert fact, greater continuity of intellectual development; greater flexibility of programing, particularly in the area of the "arts," for pupils who differ so greatly; and at least as much attention to independence in studying and thinking as in the social and emotional spheres.

The fact that many junior-high-school pupils are so preoccupied with their adolescent developmental problems that they are distracted from learning may be, in part at least, of our own making. If we could provide a curriculum which would engross their attention more fully, they might then be distracted from many of their physical, social, and emotional problems.

One can insist that the curriculum of the middle school, and specifically its intellectual component, is in need of reexamination without implying that efforts to take into account the transition from childhood should be abandoned or neglected.

Many problems, such as those relating to the grouping of pupils and the maintenance of standards, cannot be solved satisfactorily until the curriculum is reformed. For example, we currently form instructional groups, and then either fail to provide curricular differences or attempt to adapt the curriculum to each group. Instead, we should reverse the process by organizing the curriculum first and then forming the groups accordingly. We define junior-high-school courses in terms of grades, when we know there are differences greater among pupils *within* seventh grade than there are *between* an average seventh grader and an average senior. It is impossible to speak of standards without reference to relatively stable and specific curriculum elements, and the grade concept has lost its usefulness for this purpose.

No, euthanasia is not the answer to the junior-high-school's malady, but a curricular lobotomy may be necessary. ●

Report on the Largest Team-Teaching Project

Team Teaching in Pittsburgh

CALVIN E. GROSS

In Pupils, Patterns, and Possibilities

IN 1960 a Ford Foundation grant and an allocation of school district funds made a bold thrust possible in the Pittsburgh Public Schools—the launching of a large-scale team-teaching experiment. The first year, five elementary schools in a congested area close to the downtown business section participated in the experiment. In June 1961, the experiment was extended to a three-year period with an additional Ford Foundation grant and additional commitment of school district funds.

Nine schools participated in the team-teaching program last year, including a junior-high school and three additional elementary schools. These schools enrolled 7,500 pupils, the largest number of pupils in team teaching anywhere in the U.S. A junior-senior high school became the tenth school to join the project in September of this year.

Pittsburgh's program in team teaching is designed to heighten the educational aspirations of children—to find and develop latent talent, to broaden opportunities for children who can make normal progress, and to given extra help to those who need it. The basic aim of the program is to teach every child, regardless of his background, the intellectual competencies needed in today's world.

The general spirit of the experiment is expressed in a determination to make effective use of everything and everyone in the school and community to add strength to the learning program. Community resources are drawn into a working relationship with the schools; educational experiences have been extended and brought to life.

In the Pittsburgh experiment, a teaching team consists of a team leader, about four regular teachers, a teacher intern, and a team mother or aide.

The team leader directs and coordinates the activities of team members and all pupils assigned to them. He is a master teacher, chosen for this assignment after demonstrating superior instructional competence and excellence in personal relationships. His major responsibilities are to maintain a full teaching load, to call team meetings, to

Calvin E. Gross is Superintendent of Schools, Pittsburgh, Pennsylvania. Reported from Pupils, Patterns, and Possibilities, *the 1961 annual report of the Pittsburgh Superintendent of Schools, 9–27.*

meet with the principal and other team leaders, and to oversee and coordinate the instructional program his team is responsible for maintaining. The team leader receives 10 percent more salary than he would receive as a regular teacher.

The teachers, as are the pupils, are assigned according to their interests and abilities. One especially skilled in teaching reading is assigned to teach reading. Another, adept in giving remedial instruction in reading, may be assigned to a small group of pupils needing help.

As nearly as possible, the teaching load is divided equally among all teachers on the team. One teacher may introduce a unit of instruction to all students in a single group. Later the children will form small groups, each taught by a member of the team, to work on special projects, do research, or review the material presented to the large group.

This division of the work load among members of the team makes possible the assignment of fewer groups of pupils to a teacher, allowing more time for teachers to plan lessons, to keep abreast of new developments in their special fields, and to work together to devise improved methods of instruction.

A teacher intern, usually a senior from a local college or university, is assigned to assist the teachers. As a team member, he participates in planning sessions. He progresses from minor assignments at the beginning until, at the end of the term, he has gained experience in instructing large groups, working with small groups, conducting excursions, and participating in schoolwide activities. Forty aspiring teachers received this student-teaching experience in 1960, 68 in 1961, and 80 are expected for this school year.

The team mother (in the elementary school) or aide (in the junior-high school) performs most of the noninstructional duties which have been a part of the teacher's responsibilities in the past. Through in-service training she learns how to set up and operate audiovisual aids and to care for and to distribute supplies. In workshops conducted by supervisors, the team mother or aide learns how to assist in the activities program, to make bulletin-board displays, and to assist in making certain instructional materials. A team mother must live in the community served by the school in which she works. She is paid $228.25 per month.

KINDS OF TEAMS

Four kinds of teaching teams—primary, intermediate, special subject, and junior high—have been organized in the Pittsburgh experiment. Each team meets at least once a week to determine the purpose, nature, and amount of large-group instruction, to decide on follow-up activities, and to decide which children need specialized instruction.

Primary teams are organized on a grade-level basis: kindergarten, first grade, second grade, and third grade. Children are assigned to a homeroom on the basis of reading ability and receive most of their instruction from the same homeroom teacher. They may, however, be assigned to other teachers for large-group instruction, special remedial help, or advanced work. In the primary department, time spent in team operations ranges from 10 percent to 85 percent during the week. The mean is about 27 percent. The balance of time is spent with the homeroom teacher on a selfcontained basis.

At the intermediate level, teams are organized in the academic subjects. The intermediate team in each school consists of the language arts, social studies, science, arithmetic, and library teachers.

The instructional team meets pupils from the fourth-grade and the slower fifth-grade levels for language arts and social studies in the morning. Grade levels are crossed downward in reading; richer experiences and additional opportunities are provided for the more able. In spelling, writing, and English, much of the basic work is done in large groups, with individualized instruction given in small groups. Groupings are made in science, arithmetic, and library for the afternoon, as are periods for art, music, and physical education.

Pupils on the sixth-grade and upper fifth-grade levels meet the instructional team in the afternoon for language arts and social studies; in the morning for science, arithmetic, library, and special subjects.

Junior-high-school teams have been organized only in grade seven initially, with subject-centered teams in language arts and social studies. There are three ability level tracks in each subject area. Children in the same track are met by the team during the same period and, according to team decision, may be reassigned if the nature of the presentation makes another type of grouping more beneficial. Teams will increase in size each year as children move to new grade levels. Additional teams will be organized in science and arithmetic.

Special-subject teams are not teams in the technical sense, but they do make possible the development of some interesting practices. For example, the music, art, and physical-education teachers from one school may get together from time to time to plan activities involving all the children in a team.

OTHER PERSONNEL

In addition to team members, other personnel play important supporting roles in the team-teaching project. There is a director, who directs the entire project. The project director has two assistants. One has the responsibility for coordinating instruction throughout the project and planning in-service training and workshops while the other's primary function is to provide liaison between community agencies and the team-teaching schools.

There are 10 principals occupying key positions. Much of the success or failure of the team-teaching organization depends on the energy, insight, and skill of the top administrator. In Pittsburgh, the principal is tending to devote less time to routine administrative detail and more time to planning with team leaders for improvement of the classroom program. He is also becoming more involved in strengthening and using community resources.

Additional personnel include primary and intermediate supervisors who spend approximately one day per week in each school, providing direct technical assistance to teachers. Also, there is a television teacher who broadcasts programs related directly to the project. The once-a-week broadcasts emanate from WQED, the nation's pioneer educational television station. The television teacher makes regular visits to the project schools to amplify her initial presentation.

The team-teaching project is strengthened by and supported by other special personnel and departments in the schools, including a clinical psychologist and a mental health team.

IMPROVEMENTS NOTED

Pittsburgh's experiment in team teaching is still too new to point definitely to specific results achieved which can be measured and evaluated. However, there have been improvements that merit mention.

Students are manifesting a greater desire to learn and they are doing more serious study and work. Instruction has become more individualized and each is encouraged to progress at his own rate of speed. New measures are being devised to determine what that rate is and to assess more accurately the students' academic potential. Their learning environment has been extended beyond the classroom to include broader and richer experiences. Through a constant program of cultural activities, a whole new world of experiences is widening pupils' interests and heightening their educational aspirations.

Teachers are showing more enthusiasm for their work and are making far greater use of their individual creative talents. Relieved of many nonprofessional chores, they have more time to teach, to think through and plan together what they are going to teach, to develop new effective ways of teaching, and to know and help the children they teach. By working together in teams, they are developing professional partnerships of real value. Educational leadership is becoming more dynamic and lines of communication between administration and staff are being strengthened.

Active cooperation with team teaching is helping neighborhoods to raise their sights. It is helping parents to understand and accept more fully their responsibilities in the education of their children. The home and the community are developing a greater appreciation for education and the value of good schools. ●

What Should He Be Doing?

The School Counselor's Task

C. GILBERT WRENN

In The Counselor in a Changing World

ONE fact crucial to our time is that there is only one way we can continue to serve our youth and serve them well in the years ahead. We must understand the new social forces influencing young people, and we must learn to apply new psychological insights into the nature of the individual.

Increasing responsibility for meeting this responsibility to youth is being delegated to the counseling personnel in our schools. It is clear that the counselor does not operate in a vacuum. He works within a changing culture, uses perceptions of human behavior that are constantly modified as new research is considered, is an employe of a school whose evolution and function he must understand.

Who is the school counselor? What does he do? What does he think he should and should not be doing?

This part of the complete report attempts to provide some information in response to those questions. The information is derived from two studies of secondary-school counselors and one of elementary-school counselors. Two of these were completed specifically for this report: a sampling of active members of the American School Counselor Association (ASCA) who were working in secondary schools, and a sampling of elementary-school counselors. The third source of information was Project TALENT, a project of the American Institute for Research, under sponsorship of the U.S. Office of Education.

C. Gilbert Wrenn is Professor of Educational Psychology, University of Minnesota, Minneapolis. Reported from The Counselor in a Changing World, *published by the American Personnel and Guidance Association, 1605 New Hampshire Ave., N.W., Washington 9, D.C. (1962), $2.50. Chapter V, 111–33.*

Among the information about counseling personnel obtained in the studies was the following:

The high-school counselor is slightly more likely to be male while two-thirds of the elementary-school counselors are female. The median age for all is slightly above 40. A substantial majority of all have a master's degree.

The median salary appears to be in the neighborhood of $6,000, but there are wide differences reflected by size and type of school. The median salary increases about $1,000 in moving from small schools to medium-sized and from medium-sized to large schools, with small schools described as having a graduating class of less than 100 and large schools having graduating classes of over 400.

Slightly over half of the secondary-school counselors work in three-year to four-year senior-high schools, and these are the larger schools of this type.

High-school counselors have student loads ranging from less than 100 students per counselor to over 1,000. The median counselor-student ratio is 1 to 412 students. Over 10 percent are in schools with ratios of 1 to over 1,000.

Some information was gained about what the counselors do in their work in the schools. From one-fourth to one-third of the full-time counselors in the ASCA and elementary-school groups devote one-half time or more to counseling students. None spend full time with students. Data for the TALENT counselors are not quite comparable but it appears that only 15 percent of all counselors in the smaller schools devote half time or more (whatever time they have) to counseling students, as compared to 64 percent in the largest schools. About one-fourth of all counselors spend over 50 percent of time assigned to guidance duties in teaching, homeroom duties, and straight administrative duties. The term "guidance" becomes very fuzzy indeed.

In the TALENT study, the counseling duties ranking highest in frequency for these schools are clearly those of "counseling for college" and "counseling for the high-school program." Also high, but about half as frequent as the first two, are "counseling for developing potential" and "counseling for inadequate achievement." Still lower is "counseling for occupations." All information is from responses to items on a check list, indicating that to some degree the responses are suggested by appearance of the items on the form. Still, while the interpretation of an item may vary, the low ranking of vocational counseling suggests a disturbing absence of what many assume to be a vital counseling area for adolescence.

Information acquired also establishes clearly that the duties of an elementary-school counselor vary widely as to title and emphasis, even more than in secondary school. In some areas the work done by the elementary-school counselor is inseparable from that done in other situations by school social workers or school psychologists. In systems where school social workers or school psychologists as well as counselors are employed, the elementary-school counselor is likely to be the person coordinating the work of the various specialists.

BASIC ACTIVITIES

The counselors in both the secondary and elementary counselor study were asked these open-ended questions:

> Which of your present activities as a counselor are so basic that they should be maintained even with changed social

and educational conditions that might be anticipated during the next 20 years?

Which of your present activities do not belong in a guidance program, even though they may be part of the total administrative or instructional functions?

The categorization and tabulation of the free-response answers reveals that a larger proportion of secondary-school counselors than elementary-school counselors emphasize counseling of students as a most basic activity to be maintained. The elementary-school counselor would focus more on working with parents and teachers than would the secondary-school counselor. Also, elementary-school counselors are considerably less interested in furthering group guidance and orientation activities and more interested in using community agencies for referral purposes. These differences may suggest basic differences in the needs of the elementary pupils and in qualifications of the teaching staff as well as reflecting the kind of person now engaged in counseling.

ANYTHING WRONG?

Examining the activities that counselors think should not be maintained or that are not legitimate counseling responsibilities, it appears that twice as many elementary-school counselors as secondary-school counselors find nothing wrong with their present situation. It is clear that clerical work troubles many more secondary-school counselors than those in elementary schools. When 50 percent respond that this clerical work keeps them from doing what they think could be more significant, it appears that something is quite wrong in the perception that the principal and superintendent, and perhaps the school board, have of the functions of counselors.

About equal proportions of elementary-school and secondary-school counselors object to the use of counselor time for class sponsorship, study-hall supervision, routine discipline, and the mechanics of psychological testing.

In some of these areas, discipline for example, professionals in both teaching and counseling must be involved, but it is a mistake to have an administrative policy which requires counselors to be responsible for study hall and detention hall supervision, or which requires $6,000-a-year counselors to do $3,000-a-year clerical jobs.

FUTURE FUNCTIONS

A merging of the responses of counselors and counselor educators with a body of literature on new conceptions in counseling makes it possible to list what appears to be the directions counseling will be moving. The functions mentioned here relate *only* to the counselor's work with students, and not with his part in the total school program.

To contribute to student selfunderstanding and selfacceptance.— This means that the realities of his personal characteristics and aspirations are seen by the student in relationships to cultural changes and educational and vocational opportunities. The stress is on giving attention to counseling as a prevention rather than as cure.

To be sensitive to cultural changes which affect student selfunderstanding.—What the student knows about himself must be related to the changing world around him. A counseling function is to assist the student to find the several environments — educational, social, vocational—in which he can become most completely involved and gain the greatest sense of self-fulfillment.

To help students to make informed educational and vocational choices.—A traditional function, but the suggested approach is different. The start is from the student's perception of himself and of the kinds of needs these perceptions reflect, rather than from the vocational demands as such.

To develop group learning experiences for students.—It is doubtful that what is presently called group guidance can be justified on the basis of saving time for the counselor. Hospitals and medical clinics have used group psychotherapy for some time; while the schools have used group guidance classes most frequently for instructional purposes. Somewhere in between is the counselor's use of the group experience in which interaction and learning from others under skilled leadership becomes valuable for students who are not in need of psychotherapy.

To increase student selfreliance.—This becomes a task of assisting a student to learn how to make decisions, rather than the counselor assuming decision-making responsibility. It is a task which stresses the need for a student at any level to try out his perceptions of himself in situations that will test the validity of assumptions he makes about himself.

To counsel girls realistically.—It is clear that the sheltered, submissive, and dependent female of Victorian days is of the past. Knowing the probability that at least nine out of every ten women will work outside the home during the course of their lives, and that six out of every ten women now working are married, the relationship of vocational planning to marriage planning is a reality that must be considered and given careful thought by the counselor.

To accept and encourage diversity in talents.—A new awareness of individual differences calls for recognition of an increasing variety of talents needed by society—intellectual, social, mechanical, and artistic. The counselor must be respectful of talents different from those he possesses to deal fairly with them. Beyond this, the counselor must be dedicated to the free choice of an individual to use his talents in ways that seem justifiable to him. After the counselor has contributed as much as he can to the student's selfunderstanding and to his awareness of the culture in which he lives, the moral justification of a student's use of his talents is his own, not the counselor's. ●

Successful Guidance in Elementary Schools

LOUISE O. ECKERSON
and HYRUM M. SMITH

In School Life

SECONDARY-SCHOOL counselors have learned through experience that the characteristics that prevent the gifted child from doing superior work and those that are typical of the dropout and the delinquent were well developed when these children entered high school. Moreover, research has proved that children's unhealthy habits, physical defects, poor work patterns, neurotic traits, retardation in school work, or antisocial behavior can be detected in the elementary grades.

But detection isn't enough; it is merely the first step; the cause of the disturbance must be found and if possible removed. The cause might be any one of many things—loneliness, poor home environment, fear. Some of these causes—poor home environment, for instance—are inherent in social conditions for which the school is not responsible. But some for which the school is responsible cannot be corrected by teachers who lack the time and the professional background necessary to give the children the guidance needed.

Here, a specialist is needed; one skilled in identifying early signs of trouble and possessing professional knowledge, insight, and techniques of guidance. The earlier in the child's life the specialist begins his work, the greater chance he has of helping them.

The elementary school is the logical place for guidance services to begin. As soon as a child enters school he should be observed and studied to determine ways in which he differs from other children so that his good traits can be developed, his weak or damaging traits corrected, or educational provisions made to minimize the effect of his limitations.

For a long time, teachers and principals have performed some guidance services for elementary-school children and a few schools have had guidance specialists. In the last few years, however, an

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increasing number of schools have set up guidance programs with personnel selected specifically to meet the needs of elementary-school children.

Specialists experienced in helping elementary-school children know that guidance at this level is quite different from guidance in high school. Services on both levels aid pupils in reaching a higher step in their development, but the nature of the higher step and the maturity of the children dictate the functions of guidance and the training of guidance consultants.

Since children everywhere have some common needs, guidance programs set up to meet their needs have many similar functions. But since elementary-school programs have evolved from local conditions and local theories on how to improve those conditions, the services offered differ from school to school in organization, personnel, and emphasis of the program.

SUCCESSFUL PRACTICES

School officials planning to organize guidance services cannot always adopt a tailor-made program. But they may get some suggestions from practices proved successful elsewhere. The following represent a composite of 24 elementary-school guidance programs considered outstanding by state directors of guidance.

√ The program is one part of a broader organization of services offered by the school system and the community. These are usually called *pupil personnel services* and, in addition to guidance consultants, utilize school psychologists, school social workers, physicians, nurses, attendance coordinators, and perhaps other professional personnel such as speech and hearing specialists.

√ The program serves all children, not just those with serious problems.

√ The guidance consultant is at the center of the program which involves the entire school staff. The teacher, assisted and supported by the consultant, applies guidance principles to classroom instruction.

√ The consultant's functions are to:

Test and observe children who are having difficulty in learning, are underachievers, show signs of emotional disturbances, need curricular adjustment or placement in special classes, or are considered for referral to other child specialists.

Counsel children with problems when the nature of the problem and the child's maturity indicate that counseling would be helpful.

Counsel with teachers, principals, and parents to help them understand normal children and children with problems; use information derived from tests, observation, cumulative records, and conferences with children and adults.

Refer children needing intensive diagnosis to pupil personnel specialists and community agencies and help plan programs to carry out their recommendations.

Provide in-service training for teachers to aid them in meeting difficult classroom situations through understanding normal and abnormal behavior of children; help them understand how they should motivate children in taking intelligence and achievement tests; and contribute to their understanding of mental health, maintenance and use of cumulative records, and techniques of interviewing parents.

Develop programs for group guidance in such areas as common personal problems, study habits, occupational orientation, and preparation for the secondary school.

Help children who need them obtain glasses, hearing aids, clothes, food, and other essentials.

Interpret the guidance program to parent and community organizations.

Conduct research and evaluate studies dealing with the effectiveness of the program.

√ The consultant's background usually includes successful teaching experience in the elementary school, state certification for guidance personnel, and a master's degree in guidance.

UNDERLYING THEORIES

Following are some of the theories underlying guidance practices in different programs:

That the guidance program serves a child indirectly.—When feasible, the pupil has not been aware of the participation of the guidance consultant.

That the guidance program serves the child directly.—The typical elementary school of 1970 will have at least one full-time professionally prepared counselor devoting about 60 percent of his time to work with children and the rest to work with teachers and parents.

That the program should develop certain attitudes.—The teacher makes a major contribution to the objective of guidance by recognizing adjustment needs as more urgent than learning needs, by emphasizing development of talents rather than the correction of deficiencies, and by recognizing the pupil's attitude toward the teacher as well as the teacher's attitude toward the pupil.

That the limitations of guidance services should be observed.—It is important for teachers and counselors to be alert to signs of conflict but it is unwise to attempt to treat symptoms. A relationship exists between symptoms and causal factors, but the two should not be confused. The business of the teacher and the counselor is to be aware of the kinds of behavior that indicate conflict, then see that help is available for the individual exhibiting the behavior.

That certain responsibilities are not functions of the guidance consultant.—The licensed counselor shall not be assigned to classroom teaching. He shall handle and advise in disciplinary cases but shall not mete out punishment. He shall not be required to perform yard, hall, cafeteria, or similar duties, except in extreme emergencies. ●

THE quickest way for a child to get attention in school these days is for him to bend his IBM card.—From Bellflower, Calif., *School Reports.*

What Are Some of the Roadblocks?

Employment-Bound Youth Need Guidance, Too

RALPH C. WENRICH

In Michigan Journal of Secondary Education

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EMPLOYMENT-BOUND youth, those boys and girls going directly from high school to employment, are not getting the guidance they need. While the condition may be due in part to insufficient personnel, the problem will not be solved by simply reducing the pupil-counselor ratios in our schools. It is recognized generally that guidance services in most schools are weighted heavily in favor of those most likely to enter college, yet few schools are doing what they could do to correct this inequality.

Typically, about half of each high-school graduating class is employment bound. In addition, many boys and girls drop out before graduation, hoping to find employment.

The ratio of employment-bound youth to college-bound youth varies from community to community, but in the United States about six out of ten youth graduate from high school. Three of these graduates continue their education beyond high school. The other three, plus the four who did not graduate, leave the high school in search of employment. These are the employment-bound youth who need guidance no less than the college-bound youth.

Although guidance workers have for a long time been pre-occupied with college-bound youth, they have received additional support for even greater efforts in behalf of this group through Title V-A of the National Defense Education Act. The regulation outlining the scope and purposes of this Act states: "Guidance and counseling programs in public secondary schools under the plan shall serve . . . to encourage students with outstanding aptitudes and ability to complete their secondary education, take the necessary courses for admission to institutions of higher education, and enter such institutions."

College-bound youth need all the guidance they are now getting, and more, but employment-bound youth need guidance, too.

The National Manpower Council in its report titled *A Policy for Skilled Manpower* recommended developing a more effective program of vocational guidance as one of five long-range objectives necessary to strengthen the nation's resources of skilled workers and technicians. The Council also recommended that school officials use their guidance and counseling staff primarily for vocational guidance purposes.

While it may not be desirable to devote all guidance resources to helping youth plan careers intelligently and make satisfactory occupational adjustment, it might be in our best interest to devote more of our resources to this end.

Guidance workers generally describe their services and activities in these categories: individual inventory service; informational service; counseling service; placement service; and follow-up or research service. Two of these, placement and follow-up, as they relate to the needs of employment-bound youth, need special examination.

In the 1960 Annual Report of the Carnegie Corporation, John W. Gardner makes this comment:

"Setting aside the question of how well the high school *prepares* for the transition, let us ask how effectively it aids the boy or girl in actually *making* that transition. The answer is that with a few shining exceptions, even our best high schools do virtually nothing toward this end."

In the same report, Gardner states, "To be specific, every high school in the land should provide *continuing* vocational and educational counseling for all who leave school short of college. These services should be available until the boy or girl reaches the age of 21. As things stand today the high school does not provide such follow-up."

Placement is usually thought of as bridging the gap between high school and the next level of experience. For those who are going on to college, this is done by helping them to choose and get established in a college or university. For those who are going directly into employment, this generally means placement in a job. And evidence from studies and surveys reveal that, in the areas of both placement and follow-up, counseling and guidance efforts are for the greater part devoted to the college-bound youth.

ROADBLOCKS

There is some evidence that school administrators and guidance workers are aware that placement and follow-up services for employment-bound youth are weak. Therefore, if the problem is recognized and there is a desire to do something about it, a starting point might be found by examining some of the roadblocks. Among them are the following:

Counselors are predominantly academically oriented and are much more familiar with the needs of college-bound youth than they are with those of employment-bound youth. Also, they are more familiar with the requirements of colleges than they are with the requirements of business and industry. This condition can be improved by recruiting to counseling positions those teachers who have had work experience in business and industry and by making better use of teachers who have had such experiences.

Counselors frequently are diverted from vocational and educational guidance because of the load of routine administrative and record-keeping duties in which they become involved. Administrators can relieve them of much of this clerical work.

Principals and teachers are inclined to unload on the counselors all the "problem" children in the school. Most guidance workers are not qualified to provide psychiatric services, but they should be able to identify and deal with the relatively simple problems of the majority of youth who fail to achieve their potentialities.

Many guidance workers have an aversion to using the term "vocational" guidance to describe the services youth need in making the transition from school to employment. The reasons for this can be found in the history of the guidance movement, but shouldn't we be able to surmount these professional conflicts and devote our energies to the real problem—helping youth in their vocational development through adequate career planning, job training, placement, and follow-up?

Many schools and individual guidance workers have not learned to make effective use of community resources. Business and industrial establishments can be used as laboratories; personnel from industry and business can supplement the full-time faculty; agencies in the community, such as the State Employment Security Commission, can provide valuable services to supplement those of the school.

My primary purpose here is not to recommend solutions. It is to bring together for the attention of school administrators some evidence of the nature and extent of the problem, with the hope that it will stimulate action resulting in improved guidance services, especially placement and follow-up, for employment-bound youth. The specific techniques and activities needed to accomplish this will be found by school administrators, counselors, and teachers if the administrative structure and the philosophy of the school are consistent with this guidance service as a purpose of secondary education. ●

Guidance Is Cheaper

● A really adequate program of guidance could keep as many as half the present potential dropouts through the twelfth grade. . . . In the long run, it may be cheaper to give these boys and girls the guidance they need than to pay for the problems they will create through idleness.—*Sam M. Lambert,* director, NEA Research Division.

A Disruptive Influnce?

Some Cultural Implications of Year-Round Schools

ROBERT P. BULLOCK

In Theory into Practice

As an important social institution, a school is affected by changes in the society it serves. Conversely, major changes in the school affect the fundamental life patterns in the society. Changes in the American culture are of paramount significance to educators, and their response to changes is significant to our total way of life.

Many changes in American culture appear to suggest the desirability of shifting from the traditional school year to some form of year-round school. Those in favor of responding in this manner to the changes argue on the basis of these changes noticeable in the culture:

In our industrial society, the child is an economic liability—as contrasted to an agrarian society where the child is an economic asset. No longer is the child needed at home during the summer months to work on the family farm.

Technological development has eliminated many jobs, is threatening to eliminate more, has raised minimal requirements for vocational adequacy while, even in semiautomated homes, the child has fewer opportunities to learn and practice requisite work habits, responsibilities, and skills.

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Training in selfdiscipline, moral and ethical training, civic education, and recreation no longer hold the place they once had in home and family life. Adequate personal-social and psychological guidance in our complex society is beyond the capability of many parents and many functions which resided previously in the home have been relinquished or relegated to other agencies or institutions.

The changes mentioned have altered American education—virtually dictating enrichment, broadening, and extension of educational programs. The educational task has grown, and more time is required to perform it effectively.

Many schools have responded with new curricular and extracurricular offerings, extended terms, and special summer programs. Continued movement toward year-round schools of this sort would further expand summer offerings to include special instruction for talented students, remedial courses for students deficient in certain subjects, vocational subjects for students needing to acquire marketable skills in high school, and "enriching" courses for those desiring such experience.

Unfortunately, this is not the kind of year-round school most commonly proposed.

Most proposals for year-round schools suggest programs which, through block scheduling, rotated vacation periods, rotated entrance periods, and rotated promotion times, would permit 12-month utilization of existing physical facilities.

EFFECT ON OUR LIFE

Just as social changes have affected the schools, a shift to this kind of year-round school would have a fundamental effect on many aspects of our way of life. It appears that adoption of such proposals would have direct effect on: the nature and number of educational experiences available to youth, family life patterns, teachers and the status of the teaching profession, the economic life of communities where the system might operate, and educational concepts, evaluative criterions, and attitudes within the total culture.

The primary objective of current year-round proposals has little, if anything, to do with enriching, broadening, or extending educational offerings for the individual pupil, whose attendance would be limited to the traditional time of approximately 180 days. His terms of attendance and vacation as well as times of entrance and promotion would be dictated by the block schedule. Three-fourths of the pupils would be in attendance during the summer term. For them there would be little or no opportunity for presently available "enriching" summer offerings. Indeed, with the necessity of recruiting additional personnel to staff year-round operation and with physical facilities used for standard school operation, the special summer-school programs now offered would be impossible to maintain.

Moreover, summer is the time when a multitude of nonschool agencies—civic groups, municipalities, religious groups, Boy Scouts and Girl Scouts, and other youth organizations—provide supervised physical training and recreation programs having an educational value for the child as well as serving as a tie between child and adult worlds.

In addition, agencies, both public and private, offering student tours and summer work programs provide opportunities which enable children to exercise responsibility and develop habits and initiative in realistic, meaningful situations. If children were in school during the summer, these experiences would be drastically curtailed, if not eliminated. It is unlikely that the schools in regular programs could replace the contributions lost to our total educational effort.

Proposals for year-round, segmented operation overlook, or discount, the fact that in many ways our current school programs are geared to progression of the seasons and constitute a coherent nine-month whole rather than three interchangeable three-month periods. For children, teachers, and administrators, the traditional academic year is an integral unit, each period having unique characteristics. To break the natural unity into a segmented succession of interchangeable terms appears to invite several consequences, perhaps not all desirable.

Viewed as a morale factor alone, the traditional opening of a new school year gives a "lift" to the entire community—especially observable in children. The children, filled with anticipation and sometimes anxiety, look forward to the renewal of old friendships and the establishment of new ones. Children and parents hope this new year will be the best of all. The tradition of opening a new school year is rooted deep.

Many activities within the school are seasonal or are planned to exploit or correspond to seasonal holidays. School athletic heroes change with the seasons to a degree, granting the heroes of autumn activities an opportunity to play supporting roles during the winter and spring. Some activities reach their culmination during spring. The work of debate, dramatics, and of music groups comes to fruition in spring festivals, dramatic and musical productions, tournaments, and contests. With spring weather, field trips become more feasible, yearbooks appear, class trips and parties are held, and finally graduation and promotion rituals mark another completed cycle of growth and development. Children now look forward to summer experiences different from those in school. Teachers plan professional study, travel, or simple recuperation which will enable them to make the next year better still.

Under a year-round system with block scheduling and rotated vacations, one-fourth of the children would be on vacation each term. Which children should vacation during a particular term? Should football players or band members vacation during the fall? If preferred vacation times are allowed these groups, can they be denied to others?

Arbitrary block scheduling in year-round school would deprive all students of access to one-fourth of the school's activities. It would tend to segment the school year much as we segment jobs (thus making them meaningless) on a factory assembly line. A succession of interchangeable quarters with natural neighborhood groups split by different attendance times would intensify the already developing loss of identification by children, parents, and community with "their" schools. It would further depersonalize and bureaucratize what ought to be one of our most personal and intimate social institutions.

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Intellectual Emphasis Has Increased

Objectives of Elementary Education

HAROLD G. SHANE

In NEA Journal

CHANGES in American life have created a number of mutations in the objectives of elementary education. Before the turn of the century, schools sought generally to provide a rudimentary classical education, to preserve and establish moral-religious values, and to help children attain the level of literacy and skill needed for social and vocational competence in the nineteenth century.

By 1920, as our culture changed rapidly, elementary education became more concerned with children's total development, with family-community life, and with the application of scientific research that had a bearing on teaching and learning. Greater attention was given to problems stemming from an increased awareness of human differences and individuality in the increasingly complicated social environment that we were creating.

And as goals for the elementary school broadened in the 1920's and 1930's, there was a deepening split between the proponents of *traditional* and of *modern* practices.

In the early 1950's, viewpoints on what the elementary school should seek to accomplish remained a mosaic of conflicting opinions, and a decade of great debate was under way. Even now the arguments continue to be lively ones.

After prolonged and heated discussion, just where are we *now*, with respect to objectives for elementary education?

Trends in educational practices suggest current directions. If the maxim, "True expression of an individual's goals resides in what he *does* rather than what he says," it appears that many persons working in the first six or eight grades—perhaps because of changed thinking resulting from the debates during the fifties—have become convinced that some important aims associated with traditionalist or fundamentalist education have been neglected.

To phrase it more bluntly, in the last three to five years there has been a distinct trend toward an intellectual or cognitive emphasis in elementary instruction and some withdrawal from the pronounced social emphasis associated with the

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label "modernist" or "progressive."

The current search is for the means of achieving more learning in less time, a concern for organizational devices that provide superior machinery and techniques for recognizing human differences, and a quest for advice from specialists with respect to content in the sciences, in the humanities, and in other fields.

What does the freshened interest in, and trend toward, more intellectual, educationally-oriented programs suggest with respect to elementary-school objectives?

If the aims of elementary education have become more forthrightly academic, does this increased intellectual emphasis threaten sound practice? Several points seem relevant.

RELEVANT POINTS

First, there is nothing inherently wrong with a judicious increase in the tempo of attempts, through education, to improve the intellectual powers and extend the information of children. Any contrary argument is fatuous.

Second, there is a real and present danger that elementary teachers may become so mesmerized by the magic of technology, the appeal of novel grouping plans, and the respectability of more challenging content that they overlook the fact that these elements are means rather than ends in education.

The use of technology, for instance, is not a goal. It is a procedure in attaining a goal. Even mastery of content *per se* is relevant to aims only as it motivates the child to continue his education and to use his knowledge.

Third, increased interest in the goal of enhanced academic achievement should be characterized by teaching that is stimulating and challenging rather than merely harsh and onerous. Standards are not improved by requiring that pupils engage in increased busywork.

Fourth, it is incongruous for elementary education to seek to improve itself by an all-out effort to ape the programs and practices of the junior-high or senior-high schools. Such mimicry is foolish and ironic during a time when secondary-school teaching is being influenced by instructional policies and by research in learning which were initiated in the elementary school.

DURABLE GOALS

Certain established objectives of elementary education should be preserved. Changes in the educational climate of the United States have reaffirmed devotion to intellectual growth and indicated the vitality of the school's concern for basic skills, problem-solving ability, and rational thinking. These are goals of long standing that merely have been restated with vigor. Plainly, they are worth preserving.

Other outcomes that merit our best efforts include the following durable goals: improved physical health, mental and emotional well-being, the cultivation of individual talents and ability through equal opportunity, the development of social and economic literacy and of moral values, improvement of skills in the realm of human relations, the achievement of the workings of practical democracy, and an awareness of, and loyalty to, the ideals of democracy at the child's level of ability to understand them.

These objectives are not controversial, and teachers of both "traditionalist" and "modernist" persuasions doubtless would accept them—although there might be disagreement as to *how* to attain them. Our task in elementary education, with respect to goals, therefore, is related to how they best can be achieved.

How successfully goals for elementary children are pursued depends to a large extent on the individual teacher in his daily life with children. Therefore, it is important for him to acquire a body of intellectually-examined values as a foundation for his leadership activities in the classroom. This quality of mind, this power of professional judgment, is what gives meaning to classroom activities and, indeed, to the teacher's personal life as well.

Phrased in another way, sound educational values, and the worthy objectives toward which they direct us, reside neither in things nor in phrases, but in people. In this sense, "good" goals for elementary education are found within the teacher, and their attainment depends on his skill in organizing learning experiences for children.

Our success in the future, with respect to objectives, depends on a consummate display of professional skill by individual teachers in blending their quest for excellence in academic performance with educational experience that is equally effective in influencing the social behavior and emotional maturation of children in desirable ways.

In the process of continuing change in elementary education, let us hope that individual human development continues to be deemed of prime importance and that the nature and quality of programs motivate boys and girls to continue their education throughout their lives. ●

- To teach a bright pupil, get out of his way. It takes a bright teacher to keep far enough ahead of a bright child that the child won't stumble over him in the process.—From *Mississippi Educational Advance.*

- Small boy to teacher: "You know, Miss Swenson, every time you say 'have to,' I get to feeling so awfully 'don't want to.' "—Cartoon in *Minnesota Journal of Education.*

- Teacher to teacher: "Not only is he the worst behaved child in my class, but he has perfect attendance."—From *The Philadelphia Principal.*

How Would You Answer Them?

A Few Questions

ELIZABETH HUNTER

In

The Cooperating Teacher at Work

Editor's Note: The anthology of case studies in the booklet by Elizabeth Hunter, from which this case study is selected, is designed to provide opportunities for exchange of ideas about ways of working with another adult—a student teacher—in the classroom. The comments at the end are intended to provoke thought and discussion, not to serve as judgments of the behavior of the characters in the case.

MR. CAREY, the college supervisor of student teaching, placed Jill Robinson with Mrs. O'Brian for her student-teaching experience. Mrs. O'Brian, an experienced teacher, had done well with her previous student teachers. While providing a stabilizing influence, she let student teachers try their wings—which was just what Jill needed in the opinion of Mr. Carey.

Jill was an outstanding student. Her classwork was superior and she could be relied on to liven up any discussion. She had done well in her pre-student-teaching experiences. Mr. Carey considered Jill to be an excellent potential teacher.

Mrs. O'Brian was flattered when Mr. Carey asked if she would take another student teacher from the nearby teachers college. This would make the third student in two years in her sixth-grade classroom, and she liked working with them.

Before the first student teacher had arrived, Mrs. O'Brian had been worried and apprehensive. After all, she had been graduated from college 15 years ago. She was afraid that she was behind the times—or that the student would think she was. She thought of herself as a good teacher. The children always liked her, she liked them, and she tried to keep up with things. Still . . . she sometimes thought she was a long way from having the kind of program that some educators deemed desirable. What if she did not have a modern enough program in the opinion of the student teacher?

She needn't have worried. Both students had fitted into her class-

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room nicely. She had liked the contact with these pleasant, friendly, young adults. She had helped them as much as she could. When they wanted to try something new, she encouraged them if their plans seemed worthwhile and wise. She admitted that she had learned quite a few things from them. And, since Mr. Carey was continuing to place students with her, she could assume the experience had been profitable on both sides.

Mrs. O'Brian greeted Jill warmly on Monday morning. Showing Jill around the room, she said, "I'm afraid we won't be able to have a real conference until Wednesday. I have lunch duty all this week, a teachers meeting this afternoon, and tomorrow afternoon I attend a meeting of the mathematics committee. You see," she added laughingly, "teachers are a busy lot. But if you are free on Wednesday, we can have a nice long conference after school."

"I am free on Wednesday," replied Jill, "and of course I'll stay."

"In the meantime," said Mrs. O'Brian, "you take as many notes as you like, and write down all the questions you have. I want you to feel free to move around the room and join in with us in our informal activities so that you get to know the children. I think you'll find that you fit into our room quite easily."

"Thank you," replied Jill. "I really do think I'll feel right at home here."

During the next three days, Mrs. O'Brian was pleased by Jill's fine manner with children. She seemed to know just when to join in any discussion, and, without being asked, she moved in to help whenever it was appropriate.

"She's going to be excellent," thought Mrs. O'Brian.

Jill took frequent notes and was full of questions. As she sat in the back of the room, observing, she thought, "Mrs. O'Brian seems to be very nice, but she certainly is old fashioned. Gosh, the room is so quiet most of the time, it might as well be the morgue!"

After the boys and girls had left for home on Wednesday afternoon, Jill and Mrs. O'Brian settled down together for their conference.

"Well, I do have a few questions for you," Jill began, "but I don't quite know where to start."

"I'm glad you have some things to ask about. That's a good sign," said Mrs. O'Brian. "Why don't you just run through them, and then we can see which one we'll start off with."

"All right," replied Jill. "Now . . . for instance, why do you have the children raise their hands for speaking? Don't you think it would be better if they just joined in informally?

"And I noticed in arithmetic today that you didn't have them estimate their answers before they began to work on the problems. Why is that?

"Another question I have is, why do you use a spelling book? Don't you ever teach them the words that come up in their daily living?

"And don't you think the classroom is awfully quiet? I always remember the remark I heard one teacher make, which struck me as being awfully true—about a buzzing room being one where real learning was taking place."

Jill paused. "Shall I go on, Mrs. O'Brian, or would you like to discuss these questions first?"

Mrs. O'Brian concealed a strong sinking sensation and said gently, "Why don't you just go right through to the end."

Jill continued. "Now, if you're studying about South America in social studies, how is it that in these three days I haven't once heard any of the children mention any current events in South America?"

As Jill's questions went on, her voice faded from Mrs. O'Brian's hearing, and she wondered anxiously how to answer these "few questions."

Comments.—When the student teacher begins his work in the classroom, two people who did not know each other—who may never have met until the arrival of the student to start student teaching—suddenly become important to each other. The cooperating teacher becomes a major figure in the life of the student, and the student becomes a person of consequence at least in the working day of the teacher.

Whether mismatched or well-matched, the student teacher and the cooperating teacher now embark on the classroom experience. This case tells one of the things that can happen between students and cooperating teachers in their daily relationships.

Just as there was once a time when most parents assumed they knew how to raise their children, there was a corollary time when cooperating teachers—then known as training teachers—had no apprehensions about the value of their teaching. Student teachers also did not openly question the practices of their cooperating teachers.

Now the older generation often wonders about the value of its practices, while the younger generation displays outright skepticism. Jill Robinson may be more forthright and less tactful than most student teachers, but modified versions of her questions are frequent in student teaching today. And Mrs. O'Brian's apprehensions about her qualifications as a cooperating teacher are certainly common. Both the questions and the apprehensions seem to be honest expressions of doubt.

How should Mrs. O'Brian handle Jill's questions?

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AFTER her first day at school, Pamela was asked how she liked it. She hesitated a moment, then said, "Sometimes I thought it wasn't very nice. And then sometimes I thought it was worse."—R. W. Bond in *The Christian Science Monitor.*

The Status of the Revolution

MARC BELTH

In The School Review

THE educational revolution that began at the turn of the present century has been brought to a standstill by new spokesmen for old ideas. These spokesmen (from various foundations) have equipped themselves with all the new instruments of transmission and persuasion that money can buy.

In any struggle between competing ideas, the use of force, of power, is its own justification. In the struggle over the future of the schools, this power is being used to prove that we can dispense with foolish pedagogy and something called "methods of teaching." All the methods needed may be found in electronics.

If the belief that undergirds a program is dangerous, the danger is multiplied when that belief is enabled to control conduct with great precision by the use of efficient and powerful instruments. The efficiency of these tools, the continuing expansion of their power, has drowned out voices of those who speak for ideas other than the simplicist's notion of educational theories. For the first time in history, money has bought instruments of such power that only the ideas of the sponsors, who have foundation products to sell, can be heard. The power of the tools of transmission is best measured by the incredibly few years it took to make only their own voices heard.

Before the machines, the educational revolution had moved toward a vigorous, if youthfully over-sanguine, sense of independence. It was an intellectual revolution, seeking freedom from that single way of thinking about education loosely identified as "academic," which had endured so long. The revolution sought freedom for a continuous expansion of the ways of thinking by which knowledge is created or attained, and, along with this, for ways of developing powers of thinking in learners.

Today, instruments that might have pushed the revolution further are used to paralyze it.

A revolution is an effort to establish independence against prevailing authority, an authority sometimes embedded in economic or political or military institutions, or in a securely patterned combina-

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tion of all. Authority is most effective when hidden by being hardened into customs that are easily followed and moral codes that are simply grasped.

EDUCATIONAL HERESY

The very nature of revolution is heretical. In education, the heresy began as the insistence that knowledge of something depends on the methods by which knowledge is achieved or communicated. But since knowledge and the methods by which knowledge is reached are not identical, it is necessary to study each in its own terms.

Knowledge, as conclusion, as instrument, is tested by its hardness, that is, by its claims to truth; and method is tested by the ease, efficiency, as well as the demonstrable accuracy, by which knowledge is gained. One can memorize knowledge, but one must learn to use and improve the methods for creating knowledge. Recognize this difference, and the full heresy of modern education can more easily be grasped. For knowledge is bound up with the methods by which it is attained. Indeed, for new, dependable knowledge to emerge, sound well-learned methods of attaining knowledge are essential.

Small wonder that those who uphold the Perfect Conclusion, which only needs to be memorized to work its wonders, are trying to annihilate this rebellion in education. For them, knowledge depends on nothing outside itself; it depends in no way on modes of achievement.

The struggle between supporters of these alternative views in education has gone on for a long time. On one side are those whose programs and practices are based on the belief that good moral intention, a full grasp of a given field of study, academic devotion, enthusiasm, and effective use of the new repeating instruments are the sound bases for good education. On the other side are those who believe that the quantity and the quality of learning depend on the effectiveness of the methods by which knowledge is reached and communicated, and on the ever more refined procedures by which knowledge is validated.

Thus, for one side, knowledge of the material is primary, and certain psychological characteristics in the situation are desirable, though hardly necessary for education to occur. For the other, there is the eagerness to demonstrate that knowledge of materials derives its meaning and defensibility from ways by which knowledge is gained and the ways in which it is organized, tested, and presented. In the former, conclusions are all. In the latter, conclusions depend on methods, and methods are examinable, open to analysis, and, therefore, to continuous improvement. For the former, knowledge is independent and tested by its concordance with nature. For the latter, knowledge varies and broadens as methods of learning and communicating become broader and more varied.

During the present century, educators have been moving to establish recognition of the independent inquiry which is a discipline of education. Over the present half-century especially, two facets of this independence have become apparent. One is an effort to break free from all noneducational dominion. The second, which is just beginning to appear, calls for freedom from the idea that any dependable conclusion in any area is also an educational conclusion.

The revolution, like every other intellectual revolution, is seeking to establish its own ways of reasoning, its own types of research, its own forms of language, and, with these, the right to establish its own programs and moral criterions for judging them.

If education succeeds, it will no longer be thought of as a satellite of prevailing authorities or disciplines, social and scientific. If the attempt to establish intellectual identity succeeds, education will become an additional category for organizing the findings of all other disciplines and thus be recognized *de jure* as a method of contributing to both social and scientific growth.

Time is required before new educational concepts, new ways of seeing the world of experience, become part of the commonsense thinking of a nation or a period of history. Continuous exposition, demonstration, expansion, and refinement are necessary before there is recognition of the notion that to teach is to enable someone to do with his own experiences what the most creative thinkers have been able, or are now able, to do with theirs. Time and effort are required before the possibility that such powers lie within the normal range of human beings is accepted and more widely sought.

REVOLUTION BLOCKED

The revolution was on the way to this development when it was blocked on two sides: on one side by misconstruing though sympathetic minds, and on the other side, by outright, violent rejection from the unsympathetic, whose convictions reflected the prevailing level of common sense, in which intelligence is conceived to be a matter of mystery, and cannot be generated, especially by education or educators.

The revolution has produced three real disturbances.

First, a moral rebellion occurred. If educational worth is to be judged by moral criterions, the moral criterions must derive from what we come to understand to be the process of education. Such criterions would then really be a test of what we have conceived to be educational activity.

Second, a new concept of the status, the function, and the scope of knowledge was produced. It is accepted that education is the effort by those who know to enable others to know. But the revolution lies in developing awareness of the wide range of knowledge that is required if education is to be accomplished.

Third, a new view of what has legitimate dominion over educational theories and practices had been, and is continuously being introduced. Implications for programs and theories of education are bound up with findings in the sciences: in physics, sociology, and psychology. The revolution, however, is rooted in the realization that before such implications can be warrantably employed to assist in fashioning an educational program, the findings must be treated to make them pertinent to education.

Today, the struggle over education has veered and become dramatically attached to the issue of national life or death. By means of the new media of communication this theme reverberates until we find it all but impossible to think calmly about the educational problems before us.

The first victim of the shift is the orderly effort at analysis that the many facets of the educational theories call for. Invariably, such real societal danger becomes the occasion for a clamorous resurgence by proponents of old, simple faiths. The threatening conditions are identified as the result of new theories of education, which in fact have never fully taken public hold.

Thus, the counterrevolution directed its energies to propounding what it has always propounded as the ways and goals of educating, only doing so more intensely and encompassingly. Its hope is to restore the very thing the revolution for a time was able to dislodge. By means of economic power, the remarkable instruments of communication were adapted as tools to operate in the old systems of meanings of knowledge, learning, and teaching.

Despite all this, the foundations cannot alter the growth in the knowledge of the bases of education. They can only distract the attention of the public and those embarking on educational careers from inquiring still further into them. The machines have not altered the principles of learning; they have only helped make them clearer.

The foundations can, if they would, help education to clarify its identity, instead of treating it simply as an instrument of social power. Although it would be foolish to charge all foundations with this conduct, it must be apparent that in most cases asking them to assist in the nurture of educational independence would be like asking the magician Merlin to help endow a chair to foster the thinking of Copernicus; or to expect that William Jennings Bryan would lead a movement for the development of methods of learning and thinking of Clarence Darrow. •

MOST Americans believe that 75 percent of our problems can be solved by passing a law, painting a sign, or appointing a committee.—From *Farm Journal.*

Progress Is Still Too Slow

Changing School Needs in Rural Areas

ALVIN E. RHODES

In Financing the Changing School Program

A NEW type of rural life—a life more industrial than domestic—has evolved in this country and is spreading rapidly. It has resulted from the impact new technologies have on rural America.

The traditional family farm that provided a home as well as family support is giving way to the industrial farm, which is merely an operating unit in a huge agricultural enterprise. There is an accompanying severe and dramatic reduction in manpower requirements.

The farmer who used to live on the land he tilled now lives in town or on one farm that serves as headquarters for operation of several farms. As people have moved off the land, many little villages have gone with them. Today, in places, there is open farm land where villages once stood.

But the picture is not all one-sided. There are two factors guaranteeing there will always be a rural America. First, while the rural-*farm* population is shrinking, the rural-*nonfarm* population is growing—and growing at a rate that results in an increase in percentage of rural population within the national total. Second, official estimates indicate that while the total farm population may become a smaller percentage of the national total the total *number* has probably reached stability.

Turning to the educational changes accompanying the changing rural scene, we should first emphasize a major point: In any consideration of changes in education, the variables must not be confused with the constants.

The constants provide the broad common denominators in American education—the need to prepare a citizenry capable of selfgovernment, the need to develop each person to his maximum that he may enjoy opportunities and contribute his best to a free society.

The variables are just as important. If the constants are to be achieved, the *form* of education must be adapted to the communities they serve. Education must be flexi-

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ble enough to meet the needs of people in their endless variations of living. There must be responsiveness to change if the constants are to be served in terms of the realities of any given situation.

Variables and constants are quite different and must not be confused if the changes in rural education are to be viewed in proper perspective. Any changes occurring in respect to constants are, or should be, occurring in all American education—rural, urban, and suburban alike. Changes in the variables result from a changing rural society and economy and should be particularly characteristic of rural schools if they are to serve the constants effectively.

Some rural schools are not fulfilling their obligations in respect to the constants as effectively as must be expected. The statistics are not entirely encouraging.

During the 1950's while there was a marked reduction in the percent of the U.S. population having no or only a few years of schooling, the reduction was least in rural-farm areas. While the median number of years of schooling completed by the total population increased by 18 percent (from 9.3 to 11.0), there was only a 4 percent increase among the rural-farm population (from 8.4 to 8.7). By comparison, the rural-*nonfarm* population increased its years of schooling by 26 percent (from 8.8 to 11.1).

Illiteracy dropped significantly throughout the country, much more in rural-farm areas than elsewhere; but some of the edge is taken from this encouraging fact when it is noted that illiteracy was greater to start with, and continues at a much higher rate, in the rural-farm areas.

In brief, the statistics tell us that a major job of improving education in the rural-farm areas remains to be done.

We may be encouraged by signs of better things to come. In many places, rural schools have found ways to extend the instructional program well beyond the three R's to a scope that compares favorably with the offerings of schools anywhere, demonstrating that it can be done in rural areas. Teachers are better trained and have better facilities; school libraries are becoming more adequate; guidance, psychological, and school-health services are found more frequently; special programs for physically and mentally handicapped children are more common; more attention is being given to the needs of special groups, such as migrants; vocational and adult education are receiving more attention; and there are some good beginnings in special services for those academically gifted.

Much of this advance was made possible by improvements in organization and administration—an essential prelude to improvements in program and service that must continue in the future. That it will continue appears probable.

ORGANIZATION IMPROVEMENTS

Tremendous changes are taking place in school-district organization throughout the United States. School districts are being consolidated into units that are more capable of supporting and operating high-quality educational programs.

In the 28 years from 1932 to 1960, 117,000 operating school districts have been reduced to a little over 35,000—a reduction averaging almost 3,000 districts or about 2.5 percent yearly. Furthermore, between 1955 and 1960 the rate of reduction averaged about 6 percent per year. Clearly, the changes are coming faster.

These changes have resulted chiefly in elimination of nonoperation districts and districts with fewer than 10 teachers. In 12 years, 1948 to 1960, one-teacher schools have dropped almost 75 percent, from just under 75,000 to a little over 19,000.

ADMINISTRATIVE IMPROVEMENTS

Comparable changes are occurring in the administrative structure of rural education. One, the development of the intermediate unit of school administration, is notable because it is of considerable magnitude, it is a logical concomitant to district reorganization, and it holds particular promise for bringing quality education at reasonable cost to rural areas in which even the best district organization will not meet all the needs.

The intermediate unit is an office operating at a regional level (often a county), working with and through local districts to coordinate and supplement services and to link the district and the state department of education.

One good reason for having an intermediate unit is that school systems in most states are in the awkward position of serving two masters—local control on one hand and state requirements and objectives on the other. The schizophrenic result is more severe in rural areas, where local control is most vigorously defended, but where choice of action, a necessary ingredient of control, is seriously restricted because of the inability of weaker districts to support, or effectively utilize, a full range of school services.

To gain a sufficient tax base or a large enough pupil population to establish and maintain a quality educational program, with its attendant special services, it would be necessary for the weaker districts to extend boundary lines beyond all reasonable sociological or geographical limits—with attendant loss of local identification and control.

The answer is sharing. With the help of an intermediate unit, the boundaries of such school districts may be set where consistent with community identity. The district's own services may then be supplemented on a cooperative basis, sharing with other districts in the intermediate unit those services it cannot efficiently provide for itself.

The intermediate unit has three main functions—articulative, coordinative, and supplementary. Through the articulative function, the intermediate unit localizes the administrative operations of the state school system and interprets local school needs to the state body. Through the supplementary function, the intermediate unit brings specialized services to school districts on a shared basis—services needed by pupils and teachers for a well-balanced educational program, but which local districts cannot provide adequately by themselves. In its coordinate role, the intermediate unit provides leadership in the general improvement of education, helping school districts to work together on their common problems.

Of course, there are problems of finance. My purpose here is only to set forth some major considerations.

First, much more should be done in applying the principle of equalization to the financing of public schools throughout rural America. Adequate apportionment of funds from the state level for basic school support, supplemented by federal assistance, is a primary requirement.

My own experience suggests another problem of school finance that is of particular concern in rural areas. This is the problem of making equitable use of the various sources of tax revenue in supporting the public schools. Taxes on land and property—the traditional basis for school support—still carry a major share of the burden in many parts of our country where state support is meager. This may have been suitable in an agrarian society wherein wealth existed in the form of land. Perhaps it would be suitable today if our rural society were completely independent from the rest of the American economy. This condition does not exist.

Rural education, no less than all of American education, is everybody's business. The rural population is a minority which cuts across all groups and affects all segments of our society. Our national welfare is dependent on our rural people, or is deeply affected by them. Not only is our rural life intimately related to the rest of America, but wealth now exists primarily in forms other than land. Until our methods of securing and distributing funds for school support take these changes into account, we shall suffer from educational anemia, particularly in rural areas where the effects of the changes in wealth are felt most severely.

Rural schools and the society they serve have many needs. They need a broader contact with all of American society. They need a better quality of education. They need the kind of support that will make such quality possible. While we may be encouraged with progress that is being made, it has not gone far enough nor fast enough. ●

CHANGE does not necessarily assure progress, but progress implacably requires change. . . Education is essential to change, for education creates both new wants and the ability to satisfy them.—*Henry Steele Commager.*

To Provide an Enriched Program

Supervised Correspondence Study for High Schools

SIDNEY C. MITCHELL

In The Home Study Review

EVERYBODY knows that high-school enrolments have been steadily increasing for a number of years. Secondary education, therefore, has faced, and continues to face, new problems of curriculum making to meet the educational demands of that vast throng of students.

Various methods have been devised to provide an enriched program of studies designed to meet these new demands. The great problem has been to accomplish these things without greatly increasing the cost of operation. In many high schools, this has been done through the use of supervised correspondence study.

Supervised correspondence study is not new. It was first used in the Benton Harbor, Michigan, High School in 1923, with the cooperation of American School, an accredited Home Study School in Chicago, Illinois. Supervised home study has been provided continuously in the Benton Harbor school ever since. Just how many high schools are currently using the plan is not known, but there are many, and the number is growing year by year.

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Just what is supervised correspondence study? As used in the public schools, it is a method to enrich the curriculum of any high school by providing correspondence courses—courses which can be obtained from any of several accredited Home Study schools. Many of these courses are those which are not usually offered in the regular curriculum. The Home Study course, which is integrated into the pupil's high-school class program, is studied during school time, and credit can be granted toward graduation for all courses completed, provided certain steps required by the North Central Association policy have been followed.

Administrative devices and supervisory procedures are set up so that those factors that might operate against the success of the student in unsupervised correspondence study will be avoided. The plan recommends that a place be designated in the school building where the pupil can study, free from interruption and distracting influences. The plan requires that a scheduled time be provided in the daily program of the pupil for correspondence study and that a competent teacher-supervisor be present to see that the student follows the program regularly. The supervisor examines critically the instructional materials received from the Home Study school before placing them in the hands of the student. He also administers the end-of-course examinations.

It should be emphasized that these correspondence courses are as difficult as courses studied in the classroom. They require careful study and a high degree of selfreliance on the part of the pupil. This means that for the plan to operate successfully the pupil must have competent guidance in the selection of a course. The course selected should be based not only on the student's desires and interest but also on his ability to study intelligently the given subject.

What are the advantages of the plan? The following are some of them, based on my observations of supervised correspondence study for more than 35 years. They include advantages not only for the pupil but also to the high school and the community.

The plan provides a program of studies extensive enough to serve the educational needs of practically every normal pupil in any high school, large or small. The flexibility of the plan permits the arrangement of a separate curriculum for each individual pupil if necessary.

The gifted pupil can work continuously to the full limit of his ability without being hampered by slower pupils. All correspondence instruction is individual instruction, and each pupil progresses through his course as rapidly as his ability will permit. The slow pupil can proceed more deliberately without retarding the progress of others.

Correspondence courses are excellent aids in a guidance program, since they can be used by students to explore different occupational fields.

If a student must work part time, he can study subjects through correspondence which otherwise might be closed to him. Subjects which are offered in the regular daily schedule while he is at work can be taken by correspondence.

The pupil has the local supervisor to help him interpret the text materials and to encourage him when he encounters difficulty.

The pupil learns to think his own way through a problem and to rely on his own efforts in the accomplishment of a given task. And the selfconscious pupil is able to express his thoughts without embarassment. Supervised correspondence study is a boon to the speech defective and the hard-of-hearing.

Supervised correspondence study, because of its wide variety of offerings, increases the attractiveness of high school to the pupil who is prepared to study. And the holding power of the high school is increased. Potential dropouts who discover that there are direct values to be derived from study stay in school longer than they would otherwise.

Large administrative units are not necessary for differentiated programs of study. This plan makes variety possible even in the smallest high school. Those subjects for which a competent teacher is not available can be taught by correspondence. And the problem of extremely small classes can be met through correspondence instruction for these groups.

Many failures are avoided. Pupils who are permitted to pursue studies in which they are most interested are not so likely to fail. This program also provides useful training to the unmotivated students who are compelled to attend school under compulsory attendance laws.

The best and most up-to-date teaching materials are provided. The better correspondence schools revise their instructional materials constantly to keep them current.

These are some of the advantages. Of course there are limitations, for no educational program yet has been devised that has not had some limitations. Among the disadvantages are the following:

DISADVANTAGES

Since the subject in general, or points or problems raised by the test, are not discussed in a classroom situation, the interchange of ideas is lacking. The socialized limitation is also eliminated unless two or more students are taking the same subject and get together to discuss it.

Equipment for experimental work to supplement the study of some courses, such as physics, chemistry, and biology, is lacking.

A delay in returning corrected examination papers by some schools is sometimes objectionable.

Help in the interpretation of some technical problems often cannot be obtained without writing to qualified instructors in the correspondence school.

Correspondence study is inherently difficult for the pupil who is a poor reader.

Although some of these deficiences can be reduced or eliminated, it cannot be denied that the method has some limitations. We do not claim that supervised home study will cure all the ills of secondary education. On the other hand, it does provide a vast extension and improvement in the facilities and learning materials of the regular high school. It is of particular advantage to the individual because it permits the arrangement of a program of studies that comes near to serving his specific needs. It places the high school in the advantageous position of being able to minister to all types of students who may enrol. And it is of distinct value to the community because it is possible for the high school to render much more adequate service to its people at a cost that is not prohibitive. ●

The Objections Have Been Overcome

Paperback Bookstores

In School Management

DURING the last two years, the number of high schools that have their own paperback bookstores has increased from less than a dozen to more than 1,000.

These new retail outlets vary widely in extent of operation. Some are only a wire rack near the cash register in the lunchroom; others are elaborate setups next to the principal's office, manned by student volunteers on a regularly scheduled basis.

All have one thing in common: acceptance and enthusiasm on the part of students, teachers, librarians, and administrators. A comment by one English teacher expressed the enthusiasm: "Almost overnight our kids are reading more books than we ever dared hope they would. Not just the bright pupils, but all of them. This is a revolution."

At the outset, selling paperbacks in schools presented more-than-ordinary obstacles. Here are three objections educators faced:

The lurid reputation built up by cheap paperbacks featuring sex and violence; fear that local bookstores would oppose the school bookstore as competition; and concern that the operation would add further to the teaching staff's crowded schedule.

OBSTACLES

The first obstacle was substantially overcome by the paperback publishers themselves. Realizing that many of the titles successfully introduced at the college level could be used in secondary schools, publishers revised their catalogs to suit student needs. School authorities, confronted with a variety of good titles—without an appeal to sex and violence—quickly discovered that their fears were groundless.

Some publishers went further, having scholars such as John Mason Brown, Van Wyck Brooks, or Bergen Evans write short introductions touching on the main points of the book to whet the student appetite and stimulate ideas for term papers and reports. The introductions also help the teacher by furnishing material for launching classroom discussions.

The fear of protests from retailers has proved groundless, a point established by a survey conducted

Reported from School Management, *VI* (*August 1962*), *22–24.*

recently by *School Management* among 400 schools which had established paperback stores in the last 24 months. The survey revealed that there was not a single case of retailer protest. The response from one Midwestern superintendent helps to explain why: "We're not in competition, anymore than our basketball games are in competition with the local movie house. We have different products. We wouldn't sell most of what the drugstores carry—and they don't carry the books we want."

As for the concern about adding to the teacher's workload, the survey established that, predominantly, the bulk of the work was handled by students, usually under student-council or similar organization auspices. Further responses on this point, in essay form, articulated a universal belief that the bookstores made such a substantial contribution to pupils' education that extra work, even if it were necessary, would be well worth the effort. One librarian wrote: "The only time teachers have to do anything is when I send them a list of what I'm re-ordering from the distributor. They check this list to add titles and find out what the students are reading. As for myself, the bookstore is here in the library and I have several students helping me with it, so it's no chore."

LOCATIONS

The survey was designed to collect information that would be of aid to schools interested in starting their own bookstores. While locations varied widely—including gyms, closets, principals' offices—about half of the schools located the store in the library. Another 15 percent used an English classroom. The library was judged better from the point of view of control. One principal commented, after trying three different locations, "It didn't make any difference so far as the students were concerned — they found the store and used it, wherever it was."

SELECTING TITLES

In the matter of selecting titles, many schools have highly organized systems. The librarian was a factor in almost 50 percent of the cases, teachers in slightly more than 50 percent. One librarian wrote, "I prepare a list of what's available, including my selections for student's personal reading. I pass it on to teachers for them to check what they want for classroom and supplementary reading, and they in turn hand it over to the principal who examines it for anything objectionable."

Many comments appended to the survey forms offered suggestions for operation. One principal wrote: "Get a display cabinet which can be put away and locked when not in use. Deal with a distributor who handles books from all publishers. Do your own selecting. Do not let the distributor or publisher stock your shelves. Keep a list of books sold and requested. You are in for a shock. You'll find that books *can* compete with TV." ●

Do We Know
What We Want?

On Training the Teacher

ALBERT KOVNER

In The Clearing House

COWED by attacks from righteous, albeit selfappointed critics, educators frequently forget *they* are best equipped to judge certain educational matters. Dr. Conant, in his report on the junior-high school, reminds school boards that specific professional tasks should remain the province of the professional educators.

Yet, at every turn we find ourselves taking seriously the charges laid at our feet: We are accused of ignoring phonics, which would, it is suggested, at the very *least,* solve the crisis in Laos; we are accused of riding the life-adjustment trail, when, in reality, the road has been detoured for many miles; we are to blame for lack of scientists, surplus of delinquents, the apathetic attitude of the American worker.

Well, maybe so. But in one area we must stand up and say we know what we're doing. We know what is needed and what is excess when it comes to preparing teachers. We know what we want. Or do we?

Is there agreement among educators on the best kind of teacher education? Far from it.

"Education courses" have probably drawn more abuse from teachers and future teachers than any other aspect of their training, short of tuition costs. These courses are alternately described as fatuous, boring, meaningless, harmful, and a waste of time and money.

That any of these charges is even remotely true is an unerasable blot on the reputation of any school. For it can be said with fervor that a *good* course in methods, or materials, or history, or philosophy of education is exactly what John Q. Teacher needs most. In the squabble over more or less content, crash programs, teacher aids, and team teaching, the value of giving teachers the skills and background they will need looms important.

These courses and the inclusion of them in the teacher-training curriculum do not imply a lack of understanding of the need for sufficient content preparation; rather they give meaning and sequence to the use of that content.

Albert Kovner is a teacher of reading, Bronxville Public School, New York. Reported from The Clearing House, *XXXVII* (*September 1962*), *45–46.*

It is a truism that the scholarly historian may not be an excellent teacher. Certainly, colleges have perpetuated the myth of equating knowledge of content with teaching skill by permitting bright young men, untutored in educational technique and purpose, to teach college freshmen and sophomores, relegating good teachers to upper classes and to graduate work.

It is *not* true that anyone can become a teacher. It is *not* true that being able to use a slide rule means one can teach high-school students to use one. In our haste to don the protective camouflage of content and more content, we have ignored the body of knowledge centering on what we know about learning and its structure and have left ourselves vulnerable.

When teacher, on his graduation, looks back with scorn on courses which should have taught him the tools of his profession, then we have certainly failed abysmally. And no amount of content cover-up will hide the fact.

Teacher education should be just that: education which enables promising students to become promising teachers. (How many of us, that first week of teaching, reverted to tricks and gimmicks we remembered our teachers using on us?)

To those who cry "more and better content," we must reply "more and better methodology." Watching birds fly produces ornithologists, not astronauts. Knowing the dates of Civil War battles is a commendable treasure trove; but it may or may not help to make fifth graders aware of their heritage, traditions, rights, and privileges.

As the need for excellence in education becomes more pronounced, as we face teacher shortages, rising costs, stupefying enrolments, we must bend every effort to prepare teachers to teach and teach well. And as we study and learn how we must teach, we will find in addition the answers to problems which beset a nation determined to educate everyone. ●

On Selecting Teachers in Kenya

A GROUP of letters written by children of a school in Nairobi, Kenya, Africa, and sent to the Clark County District schools in Las Vegas, Nev., contained interesting comments on the selection of teachers in that country. A typical report, repeated in similar fashion in other letters, was: "In Kenya there are many schools, secondary and primary. There are no intermediate schools. . . . We do our Kenya Preliminary Examination in July. If you are not good enough, you can go to Teacher Training College. But if you are good enough, you can go to High School."—From *James H. Fincher,* principal, J. D. Smith Junior-High School, North Las Vegas, Nev.

Another "First" for Education

ETV Moves into the Courtroom

CHARLES W. JOINER and GARNET R. GARRISON

In NAEB Journal

WHILE commercial television shows give audiences an over-glamorized, inaccurate picture of a lawyer's life, closed-circuit use of television is now giving law students at the University of Michigan a grasp of the realities of the profession.

In mid-January 1962, Michigan law students began watching actual trials in progress on a closed-circuit TV link with the Washtenaw County Circuit Court, for the first time in the history of legal education.

The plans for bringing courtroom to classroom by TV began several years ago when Charles W. Joiner, associate dean of the University of Michigan's Law School, and Garnet R. Garrison, director of broadcasting at the university, began discussing the idea. There were obstacles to surmount, both technical and legal.

A legal obstacle was encountered in Canon 35 in the ethics of the American Bar Association which forbids broadcast of trials. However, Circuit Court Judge James R. Breakey, Jr., has declared two rooms on campus, over a mile from his court, to be official adjunct courtrooms. Since only certified law students watch the procedures on TV for educational purposes, as specified under a special rule of the court, conflict with Canon 35 has been avoided.

Charles W. Joiner is Associate Dean of the Law School and Garnet R. Garrison is Director of Broadcasting, University of Michigan, Ann Arbor. Reported from NAEB Journal, *XXI (July–August 1962), 1–5.*

One of the reasons for Canon 35 is the havoc which TV lighting, cables, and cameras could do to the trial situation. These problems were eliminated when in 1954 a new county building was constructed. While the courtroom wasn't designed for TV, it turned out to be excellent for it as planning progressed. The lighting, called "just good lighting from a modern architectural viewpoint," provided for satisfactory pictures without special lighting.

A small vidicon camera was chosen to scan the courtroom. It was placed in an unobtrusive enclosure near the ceiling in a back corner of the room. With no cables or floodlights, the camera is scarcely noticeable.

The audio system posed few problems, since the court already had three microphones in use. One was added so that now the judge, clerk, witness, and lawyer each has a separate microphone.

It was decided that all the controls should be run by the professors or students, but provisions enable the judge to turn the circuit off in case the court is to be cleared for a confidential session. The matter of providing for controls in the classrooms, a mile from campus, was resolved by a specially-designed remote control system using voltage impulse over standard telephone lines. The equipment has worked efficiently, satisfying the technical director, Frederick M. Remley, Jr.

No problems have arisen in court. Judge Breakey reports the mechanism is unobtrusive: "I don't take any notice of it at all . . . it's just a piece of silent equipment. Nor have I noticed any lawyer preening himself or addressing the television box, or witnesses nervous or hesitant which could be attributed to TV."

Law school faculty members generally view TV as an intelligent experiment, which they hope will work out during its three-year trial. Students are making extensive use of the facility. Some are required to watch a certain number of hours as part of their courses, but most watch at their convenience to learn about actualities of law practice.

The students become acutely aware of what makes an effective lawyer. They may see witnesses being badgered, attorneys without proper preparation or learning, and the results. There is an undercurrent of criticism if a questionable practice takes place. Many students keep running notes of the proceedings. The average person would find little of interest in daily court routine; but for these students, it is vital material for critical analysis.

American Bar Association President John C. Satterfield says the TV project is "one of the great landmarks in legal education . . . one of the most significant occurrences in the legal profession in the last 100 years."

IMPORTANT SHIFT

The experiment represents an important shift in legal education. In colonial America, there was a tradition that legal education and practice should be kept independent of college influences. The day-by-day practitioner was judged the most capable leader and teacher in the profession. After the Civil War, there came a gradual shift to the theory of law, and study of economic and social problems. In recent years, there has been concern that young lawyers have lost contact with the bar.

This has been partially overcome by legal research, legal aid clinics, mock trials, and having students visit courtrooms. But problems of time and scheduling, and location of courts, are still present, disadvantages that are largely overcome by bringing the courtroom to the classroom via TV.

While *practicality* is a definite factor in the program, a second, and more important factor, is becoming increasingly apparent. To sound theoretical knowledge, the program adds the responsibility that goes with the legal professional life. What the courts do, students learn, is solve the differences of problems of individuals so that society is not disrupted.

By coincidence, the first case seen on the hook-up was one in which a woman refused a man the right to see his own children because of a technicality in their divorce agreement. This wasn't a momentous decision, but it was a human situation which had to be solved by one judge and two lawyers to help the children and the parents as much as possible.

With such lessons brought home to tomorrow's lawyers, TV can help make them more responsible. •

The TV Influence

- In a parish school in Chicago, the youngsters were asked to draw a picture of Colonel Glenn's orbit around the world. The first one finished brought her picture up to the teacher for appraisal. "That's lovely," said the teacher, "but who is this lady down in the corner?" "Oh," said the artist, "that's Kate Canaveral."—From *Catholic Digest.*

- A little girl drew a picture of a man going into a saloon. When her mother rebuked her, she explained, "Oh, it's all right, Mother. He's not going in there to drink anything. Like on TV, he's just going into the saloon to kill a man."—From *Texas Outlook.*

- The first-grade children were asked to look in the table of contents to find the page number of their new story. When Tommy found it, he raised his hand and said, "It's on Channel 11."—From *Minnesota Journal of Education.*

- The children in the kindergarten class were gathered around naming the birds they knew as I turned the pages of our new bird book. When we came to the peacock there was a long silence. Finally, Denny said, "I know that bird. He's 'Living Color.' "—Florence Rich in *The Christian Science Monitor.*

- There may be a "wide divergence" between what viewers say they want to watch on TV and what they actually watch, if a recent survey conducted for NBC in Pittsburgh is correct. For example, although 45 percent said they would like to watch programs on philosophy and 34 percent said they would like opera, none of these people watched these program types, even though an hour of each was broadcast during the week in question.

Her Needs Are Not Being Met

The Pregnant High-School Girl

CHARLES W. HOBART

In Personnel and Guidance Journal

IT is evident that changes are taking place in marriage customs and in sex norms in contemporary American culture. One of the consequences of these changes is a sharp increase in the number of high-school-age pregnancies.

Among the abundant evidence that changes *are* taking place are two facts established by U.S. Census data: The average age of women at marriage has declined two years in the last half century; and unwed pregnancies among girls aged 15 to 19 years have more than doubled within the past 20 years, an increase from 6.58 per 1,000 girls in 1940 to 13.11 in 1957.

Our concern is with the social situation in which the pregnant high-school girl finds herself and with the steps with which the school system might take to ameliorate her circumstances.

The pregnant high-school girl faces a difficult and traumatic situation. Frequently the pregnancy was incurred without marriage and often there is a forced marriage following discovery of pregnancy. In other teenage pregnancies, conception followed marriage but often as an unplanned "mistake."

In most cases, the pregnant high-school girl reacts at least initially to her pregnancy by anticipating a confinement which she hates, a delivery which she fears, and a child which she does not want. Further, when the girl is married there is a tendency for the father to blame the girl for *her* carelessness (in accord with the double standard orientation of our culture), with resultant difficulties for the youthful marriage. Often the pregnancy triggers a certain amount of rejection of the girl by her parents (and perhaps her parents-in-law) since it has brought a certain amount of notoriety, if not of scandal, to the families.

The pregnancy serves to disrupt seriously the relations of the girl with her peers. If unwed, the girl is often snubbed or ostracized by her friends. The pregnancy tends to prevent her from continuing in common pursuits and activities with them, and it invests her with a new set of hopes, fears, anxieties, and interests at variance with her friends. She is, in effect, "expelled"

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from school and is denied the opportunities to see and to interact with her friends. This "quarantining" serves also to sever contact the girl had with favorite teachers and respected counselors.

It is apparent that the sociological consequence of pregnancy for the high-school girl is a radical and thorough alienation from virtually all reference groups which had made her life satisfying and meaningful. She once had standing, status, acceptance, and popularity in these groups. They had been the source of encouragement and moral support, encouraging and sustaining her in distress and rejoicing with her in success. They had provided her with the standards and values in terms of which she ordered her life, had reflected to her a selfimage which became her selfimage, and they had been a major influence in enriching her life.

At the very moment in life when she needs them most, when she has to face motherhood as a scared and unprepared adolescent, this alienation of the girl from virtually all relationships which had given her life support, significance, and meaning has the inevitable consequence of demoralizing her life.

In many ways, her life may go to pieces under the impact of a crisis which tends to sweep away the major sources of support which could help her to weather the crisis. Frequently the girl will become sloppy, losing pride in her health, figure, and appearance. She will indicate in what she does and what she does not do that life has lost its promise. One consequence of this is the emergence of a circular pattern, so that the more listless and sloppy she becomes the more she is rejected by friends, parents, and teachers.

The consequences are tragic, wasteful, and costly. If not enabled to reorient herself—to persevere, finish high-school and perhaps go beyond—the girl will fail to develop her full potential. She will live a needlessly shallow life, her family and her community will be denied benefit of skills she would have learned, and the country is impoverished in that human resources potential in the girl have been wasted.

The tragic consequences do not end here. The life of the baby she carries will be dependent on her ability to love, train, and discipline the child until it becomes a mature contributing citizen—or a malingering antisocial drain, and an emotionally disturbed parent in due time. There is more than one life at stake.

PROGRAM NEEDED

It appears important to develop a program planned to extricate the pregnant high-school girl from the inevitable demoralizing situation and to rehabilitate her by providing substitutes for the opportunities and the social contacts she has lost. Such a program should meet these major needs: It should provide access to materials to permit graduation from high school and include adequate access to college-preparatory subject matter if she has been planning on a higher education. It should include a course in "Home Arts for Young Mothers" designed to stabilize a shaky marriage. Related to, or included in, such a course should be practical, enthusiastically presented material on home furnishing, baby care, meal planning, and household management, with stress on economical ways of accomplishing these responsibilities. And to meet the most critical and urgent need of the pregnant girl, a program must include provisions for attempting to restore morale and interest in living.

A cue to the way of meeting this urgent need is found in the way in which this need arose—when the girl found herself excluded from reference groups which had been her source of selfrespect and of meaning and significance in life. The solution is to facilitate formation of a new group with which the girl can readily identify and perform the same functions of making herself bearable and her life worthwhile.

If such a group is to come into *effective* existence, it cannot be casually contrived nor constituted in a way irrevelant to reality.

One clear approach is to establish a reference group of other pregnant girls. I am suggesting here that through catharsis and the sharing of problems, and the rebirth of hope and the cooperative development of a sense of group identity and morale, will come new feelings of strengthened selfacceptance in the members of the group.

While the initial organization of such a group may pose a problem, an effective vehicle for getting started is available in the course "Home Arts for Young Mothers." Such a course will command a high level of student interest from the outset because much of the material would have anxiety-relieving value for the pregnant girls in the class.

There is no example of such a program in any school system in this country, to my knowledge. The closest approximation is to make some provision for some continuation school courses for pregnant girls. A common course of action is to permit girls to attend adult evening school after they have been expelled from high school. This fails to meet urgent emotional needs and, frequently, course offerings do not contribute significantly toward academic progress. Contrast this arrangement with the relative immunity of the high-school boys who impregnate girls. They are not expelled from school nor are they forced into makeshift educational arrangements.

I emphasize that statistics demonstrate that high-school pregnancy is a significant and rapidly growing problem. There is as yet no indication that school officials are beginning to devote as much effort toward solution of this problem as the human resources potential and the anguish of those involved warrant. ●

★With Education in Washington★

THE EDUCATION DIGEST WASHINGTON BUREAU

Big Defeat.—The outlook for large-scale education legislation is probably going to get even worse, alas, before it takes a turn for the better. The late 87th Congress did pass the usual minor legislative measures and two potentially major items — the Area Redevelopment Act and the Manpower Development and Training Act. But it didn't aid the schools, it didn't aid the colleges, and it couldn't even make some simple amendments to the National Defense Education Act.

The church-state issue is the problem—not fiscal conservatism, not racial integration, not partisan politics. The conservative opponents of federal aid cannot defeat a measure by themselves. But they join, as required, with either opponents or proponents of aid to private schools and colleges. Either way, the bill is defeated.

The most significant new development in the recent Congressional session is the spread of the public school-private school fight to the field of higher education. Previously, these measures had been immune to church-state considerations, but no more.

President Kennedy recommended that Congress aid the colleges by authorizing state-administered scholarships and low-interest rate loans to public and private colleges alike for construction of academic facilities. The original administration bills were disregarded as soon as they were introduced, however.

The House then voted vehemently against scholarships and for construction grants for both public and private colleges. The Senate voted for scholarships, construction loans to private colleges, and construction grants to public institutions of higher education, including junior colleges. The Conference Committee settled down during the summer months to effect a compromise.

The outcome was a bill permitting grants to private colleges, but only for libraries and science and engineering facilities. In addition to the $900 million in construction grants, the bill offered $600 million in construction loans and $250 million in construction grants for junior colleges. In lieu of scholarships, the bill called for $595 million in student loans, of which $120 million would not need to be repaid by "exceptionally needy students." Cynics in both Houses predicted that there would prove to be an unusually high correlation between financial need and athletic prowess among the borrowers.

Primary responsibility for rejecting the compromise measure lay with the House, which voted 214-186 to return the bill to the Conference Committee. This responsibility was shared with the Senate, though, since a bitter and prolonged filibuster had been vowed by powerful Senators, including the nominal leader of the administration's cause, Sen. Lister Hill (D-Ala.), chairman of the Labor and Public Welfare Committee, which handles education legislation in the Senate.

The responsibility was also shared, albeit to a lesser extent, by the NEA, which telegraphed every member of the House that grants to private colleges "would impair America's traditional concept of separation of church and state." The same position had been taken in June by the Council of Chief State School Officers, the American Vocational Association, the National School Boards Association, the AASA, and the National Congress of Parents and Teachers. The bill was already licked when Bill Carr called Western Union two days before Congress voted, but the largest professional organization got the credit—or the blame.

Dr. Jerome B. Wiesner, for example, credited NEA with defeating the bill and accordingly denounced it in a speech before the local chapter of the American Rocket Society.

Small Victories.—What did Congress enact in the field of education during the recent session? Well, it did finally strike the controversial "disclaimer affidavit" from the NDEA. This provision, slipped into the 1958 legislation at the last minute, required student borrowers to take a loyalty oath and also to file an affidavit to the effect that they were not and never had been members of any subversive organization. More than 20 colleges, including some of the most prestigious, and no doubt quite a few potential borrowers as well, thought this was a bit much—requiring students to pledge both allegiance and non-disloyalty in the same breath.

Then it turned out that, although, a chap with a record of proscribed associations could get a National Science Foundation fellowship, when this was discovered there was nothing much the government could do about it. He had gained the knowledge and couldn't give back the money, faculty salaries being what they usually are. So a few weeks ago—again, in stealth, at the end of the session—Congress decided to require student borrowers and NSF fellows merely to affirm their loyalty and face criminal prosecution if later they were proved to be Communists. President Kennedy, who had tried twice as a Senator to delete this odious provision, signed the amendment with relish.

Congress also admitted nonprofit schools for the handicapped and mentally retarded, educational radio and television stations, and public libraries to the select company eligible for cast-off federal property. All these would seem to be educational institutions and hence clearly qualified under the statute, but the HEW administrators insisted that Congress prevent them from making the mistake of giving away a few beat-up filing cabinets to an ineligible recipient.

Congress also voted to spend $1.5 million annually for the next 5 years to produce and caption classroom films for deaf children, to train teachers in their use, and to research their educational effects. This enactment proved anew the wisdom of the ancient Washington maxim: "The narrower the category, the broader the appropriation."

The national school lunch program is also to be put on a sounder basis over the next three years as a result of a minor bill. Hereafter, federal funds will be distributed to the states on the basis of the number of lunches served, rather than a.d.a. The equalization provision is retained, of course, and National School Lunch Week is henceforth to be duly proclaimed each year by the President.

The new postal rates will be rather generous to educational mail. The rate for library materials is unchanged, and the rate for educational materials will increase only ½ cent for the first pound after January 6, 1963 and an additional penny in 1964. The second-class per-pound rate for qualified nonprofit periodicals is to be raised but a fraction of a cent, in three easy steps. Even more important, school districts may now qualify their periodical publications for the preferential second-class mail rates.

After the Elections.—Can a better record be expected of the 88th Congress to be elected early this month? Probably not. No great changes can be forecast in the composition of Congress as a result of this election. Moreover, medical care of the aged is clearly the major domestic issue, not aid to education. In the case of medicare, the administration has a clear position, which most candidates are either supporting or opposing. The election results may thus indicate the will of the country on this issue, but not on education legislation.

As one of the by-products of the Congressional elections, don't rule out President Kennedy's appointment of a defeated Congressman as the new Commissioner of Education. Some of education's staunchest friends in Congress are in grave danger of losing their seats.

But even if education gains a few more friends in the 88th Congress, the church-state issue will still very likely doom all efforts to enact a major bill. Opponents of aid to private schools are even attacking the assertion that loans for science equipment (as under the NDEA) are purely for secular, not doctrinal, purposes.

Last year, when Congress extended NDEA for another two years, the HEW Department contended that any connection between religion and loans to religious schools for science, mathematics, or modern-foreign-language teaching equipment "seems to be nonexistent or minimal." Rep. Roman C. Pucinski (D-Ill.), a member of the House Education and Labor Committee, asked how church-related schools could "perpetuate a religious faith in an algebraic formula."

Comes now George R. LaNoue, candidate for a Yale Ph.D., with a 36-page answer to Rep. Pucinski's question, though one will have to read the *Harvard Education Review* to find it. LaNoue has closely examined textbooks widely used in religious schools. An arithmetic text used in Catholic schools, for example, presents the following problem:

"Jim made the Way of the Cross. He likes the sixth station very much. What Roman numeral was written above it?"

The Office of Education reports that $2.4 million has been borrowed by 179 private schools since NDEA's enactment to equip science, mathematics, and modern-foreign-language classrooms. Continuation of the law will almost certainly be placed before Congress next year, when you may expect to hear Mr. LaNoue's study, and others, cited and debated.

What's Ahead?—Sometime next spring, perhaps just as Congress is considering whether to extend the private school loan provisions of the NDEA, the Supreme Court will rule on two pending cases involving religious practices in the public schools. Maryland requires opening exercises to include the reading, without comment, of the Lord's Prayer and/or a selection from the Bible. Pennsylvania schools open with Bible readings. What is the Constitutional status of these practices in the light of the Court's decision last June that uttering an official state prayer could not be required of New York students?

Regardless of the Court's decision in these cases, Congress will probably continue to be strict rather than lenient in approving aid to private schools. An even more explosive issue may well be raised by renewal of the $300 million program of aid to so-called federally impacted school districts, which expires next June 30.

A special subcommittee of the House Education and Labor Committee is now studying this program—Reps. James G. O'Hara (D-Mich.), chairman, John Brademas (D-Ind.), and Albert Quie (R-Minn.). By February they are due to report on the following interesting questions:

Should this program be considerably reduced, as Presidents Eisenhower and Kennedy have unsuccessfully proposed? Should it be supplemented with a general-aid program, as President Kennedy attempted in 1961? Should it continue to aid districts defying the Supreme Court's integration decision? Should the large cities be made eligible, thus bootlegging them some badly needed general federal aid?

The coming Congressional session may not be productive for education, but it does promise to be active. ●

Profile of Superintendents

A SURVEY of school superintendents, conducted by the AASA, reveals some interesting facts about the men and their training for the position they hold.

The survey shows that, at one time or another, 85 percent of the superintendents have been principals, 86 percent have been secondary-school teachers, and 45 percent have been elementary-school teachers. Other positions held include vice-principals, supervisors, assistant superintendents, professors, deans, and college presidents.

Almost half of the superintendents have completed six years or more of college and 15 percent have earned doctorates.

Over 50 percent have been in the superintendency more than 10 years and 20 percent have been superintendents for at least 21 years. Almost half have held only one superintendency, while 87 percent have held no more than three.

Salary range of 44 percent of the superintendents is between $10,000 and $14,999.

The information above was gathered from questionnaires mailed last April to 13,100 AASA members. A total of 10,160 questionnaires was returned.

For Deprived Preschoolers

THE Ford Foundation has announced a grant of $155,000 to the Baltimore City Board of Education for an experiment in enriching the educational experience of preschool children living in deprived areas.

The grant will support a three-year experiment in which the children will be enrolled in a preschool program designed to give them the cultural enrichment, language skills, and learning readiness they will need for later studies. From 30 to 60 children in each of four Baltimore centers will take part in the program.

If the experiment is successful, the Board of Education hopes to lower its entrance-age requirement to set up similar enrichment preschool programs in all schools in deprived neighborhoods. It would become the first city to undertake such a program.

Standards for Crayons

CRAYONS for school children and art materials used in schools are being standardized to simplify purchasing and provide better identification, according to an announcement by the Commodity Standards Division, Office of Technical Services, U. S. Department of Commerce.

The new standards, recommended by the Crayon, Water Color and Craft Institute, will provide needed information regarding the principal types, sizes, and colors of chalks, crayons, and related art materials used by schools. It also establishes standard packaging practices for these products.

Project Social Studies

THE U. S. Office of Education, in its efforts to stimulate improvement of the curriculum in the nation's schools, announced the first of October the initiation of a new project in the social studies.

Project Social Studies is intended to improve research, instruction, teacher education, and the dissemination of information in the social studies, according to the announcement. Colleges, universities, state education departments, and, through the latter, local elementary and secondary schools, are eligible to participate in the program.

Congress has already allocated funds to the project for the fiscal year 1963. These are available for three types of activities: basic and applied research projects, curriculum study centers, and research development activities.

The Office of Education reports that although these are the areas in which funds are currently available, they represent only the initial efforts in the social studies. Interested individuals and groups are invited to suggest other activities needed for improvement in this field. Information on the new project may be obtained from Special Projects Area, Cooperative Research Programs, U.S. Office of Education, Washington 25, D.C.

Minimum Competency Tests

IN New York state, all high-school graduates soon may have to pass state-wide minimum competency tests before receiving their diplomas. Such tests in reading, writing, and other basic subjects are now being prepared, James E. Allen, Jr., state commissioner of education, has announced. After they have been thoroughly tried and refined, the state will require their use, he said.

The only state-wide examinations in the high schools in the state at present are those given by the Board of Regents to students preparing for college. "The time has come," Mr. Allen said, "for the schools to say that all youngsters who receive high-school diplomas ought to have at least minimum competency in such basic fields as reading, writing, arithmetic, and citizenship."

Carpeting in Schools

WALL-TO-WALL carpeting is receiving increased attention from school planners and educators, according to an article in *School Boards*.

A special seminar on school acoustics, held by the Acoustical Society of America, singled out carpeting as one of the most effective materials for controlling noise. And the elimination of noise under foot results in a lowering of the general tone and tenor of conversation in the building, it was emphasized.

Another advantage pointed out for carpeting has been the improved psychological effect it has on students, who, it is found, behave with more decorum and dress better when attending a carpeted school.

Jonathan King, secretary of the

Educational Facilities Laboratories, declares that carpeting will provide a savings in maintenance on a long-term basis to offset the higher initial cost.

$9,000 Salaries by 1970

SEYMOUR E. HARRIS, Littauer Professor of Political Economy, Harvard University, has forecast that "the average pay of a school teacher should be at least $9,000 by 1970 or thereabouts." His remarks were made at NEA's Fifth Annual Salary School held in Washington the last week in September.

Salaries will have to be that high, he said, to attract the number of teachers we need of adequate quality, especially since the increase of teachers needed in the next 10 years will be much greater than the increase in the total numbers required on the labor market. "This may well suggest," he said, "rise of pay of a minimum of 60 percent in the next 10 years."

Teaching Machines Exhibit

THE first major traveling exhibit showing programed instruction and teaching machines will get underway on Oct. 22, when a special demonstration-exhibit, prepared by The Center for Programed Instruction, Inc., New York City, opens in Washington, D.C., for the U. S. Office of Education.

The Center for Programed Instruction, a nonprofit educational organization, has prepared the exhibit under the auspices of the Educational Media Branch of the U. S. Office of Education.

Plans have been made to show the exhibit in seven cities, including large school association conferences. There are still open dates for the showing of the exhibit at teachers conventions and other meetings, according to A. Harvey Block, who is coordinator of the project. Information on the open dates can be obtained from Dr. Block at the Center, 365 West End Ave., New York City, or from the Director of the Educational Media Branch of the U. S. Office of Education.

DATES OF THE MONTH:

Nov. 4-5, Association of Urban Universities, Louisville, Ky.

Nov. 11-17, American Education Week.

Nov. 21-24, National Council for Social Studies, Philadelphia, Pa.

Nov. 22-24, National Council for Geographic Education, Chicago, Ill.

DATES OF THE COMING MONTHS:

Dec. 3-5, Conference on Elementary School Problems in Large Cities, Wichita, Kan.

Dec. 3-7, American Vocational Association, Milwaukee, Wis.

Feb. 9-13, National Association of Secondary-School Principals, Pittsburgh, Pa.

Feb. 13-16, American Association of Colleges for Teacher Education, Chicago, Ill.

Feb. 16-20, American Association of School Administrators, Atlantic City, N. J.

Mar. 10-14, Association for Supervision and Curriculum Development, St. Louis, Mo.

Mar. 10-15, National Art Education Association, Kansas City, Mo.

New Educational Materials

The Academic President—Educator or Caretaker? Harold W. Dodds. New York: McGraw-Hill Book Co., Inc., 1962. Pp. viii + 294. $5.95.

In answering the question posed in the title, the author, a former president of Princeton University, states, "The position of the president as a force in education continues to decline."

The decline in leadership, he believes, is a result of nonacademic duties—business management, public relations, fund raising—making demands on a president until a modern college president can often give no more than 10 to 20 percent of his time to strictly educational matters. In making recommendations that would free academic presidents to give time and energy to leadership, Dodds rejects the view that the president should give up trying to concern himself with educational matters and delegate responsibility for educational problems to a staff.

"Implicit in the office he holds is the duty to participate actively in framing and carrying out the teaching and scholarly policies of his institution."

Dodds recommends a reasonable mastery of the art of administration and development of a strong, capable, and adequate staff to which responsibility for some supporting activities can be delegated as some specific steps a president can take to maintain his responsibility to educational leadership.

This book, the 14th in the Carnegie Series in American Education, is based on a three-year study that included visits to many campuses all over the United States. It includes brief career descriptions of six outstanding presidents: Andrew D. White, Cornell; Charles W. Eliot, Harvard; Daniel Coit Gilman, Johns Hopkins; William Rainey Harper, University of Chicago; Benjamin Ide Wheeler, University of California; and Woodrow Wilson, Princeton.

Education and the Common Good. Philip H. Phenix. New York: Harper & Brothers, 1962. Pp. vii + 271. $4.00.

Subtitled "A Moral Philosophy of the Curriculum," this book has as its central theme a distinction between the life of desire, selfsatisfaction narrowly conceived, and the life of worth, goodness and excellence conceived in terms of moral commitment.

The author, who is a professor of education at Teachers College, Columbia University, argues for the re-investment of moral and spiritual values in the curriculum. His interpretation of intelligence, creativity, conscience, and reverence form the basis for his proposals for a new curriculum. From these four concepts, he believes, come the human characteristics and values essential for a sound education.

Growing Up in River City. Robert J. Havighurst, Paul H. Bowman, Gordon P. Liddle, Charles V. Matthews, and James V. Pierce. New York: John Wiley and Sons, Inc., 1962. Pp. xiii + 189. $4.50.

This is an account of a nine-year study of boys and girls growing up—spanning the years from 11 to 20—in a midwestern city of 45,000. It presents the results of a research study carried out by social scientists from the University of Chicago as a basis for thinking about educational and social policies.

When the study began, most of the subjects were in the sixth grade. The study method was that of observing children in their natural habitat—studying them as they studied, played, and worked in the community.

When the study closed, most of the subjects were 20 years old. Thus the study carries this age group from childhood into early adulthood—into college, marriage, and work.

Anticipating comparison with *Elmtown's Youth,* a study that reported the life of teenagers in 1942–43, Havighurst points out that though both studies see social class as a basic and determining characteristic in the lives of boys and girls, there are major differences in how the concept is used.

Havighurst comments that *Elmtown's Youth* was a product of the "muck-raking period" of social class analysis, coming during and shortly after the depression of the 1930's. Coming a full 15 years later, the youth in *River City* grew up during the post war years, a time of full employment and prosperity. And this study encompasses a longer period of time, focusing more on movement from childhood to adulthood rather than merely the social aspects of adolescent life.

Secondary School Teaching. H. Orville Nordberg, James M. Bradfield, and William C. Odell. New York: The Macmillan Co., 1962. Pp. x + 401. $6.00.

This text, designed to be of practical value to the prospective teacher, focuses on research implications in an attempt to describe realistically the roles of the teacher in instructing adolescents in the secondary school.

The content is organized into four sections. Part One discusses the teacher, the student, and the learning situations; Part Two, "Instructional Dialogues," is concerned with organizing instruction and utilizing materials and facilities, evaluating student achievement, and concludes with a chapter on discipline and group control; Part Three, "Teaching the Prescribed Curriculum," examines features of instructing in specific curriculum areas; Part Four, "Projections into Reality," is a discussion of the teacher's role in activity programs, parents and the community, and issues and trends and organizations influencing teaching today.

The authors, all professors of education at California's Sacramento State College, use many classroom examples from their own experience to illustrate issues being discussed.

High School Students Speak Out. David Mallery. New York: Harper & Brothers, 1962. Pp. xv + 171. $3.75.

This book reports on a study of the impact of high-school experiences on students, a study conducted under the auspices of the Committee on School and College Relations of the Educational Records Bureau. Burton P. Fowler was chairman of the Committee, and David Mallery was study director. The project, started in 1959, was conducted in eight high schools of various sizes in the New England, Middle Atlantic, and Middle West regions.

The students tell what they think about their own school experience and its value in satisfying their demands for knowledge and creative development. Their observations are broken down into a number of categories: reactions to the curriculum, to the teachers, to the teaching, to the college entrance problem, to the divisive forces in the school and community, and to development of values and responsibilities.

Some of the comments are disturbing—some current educational practices receive serious charges—but the overall impression is reassuring, especially in terms of the integrity and earnestness of the students themselves.

OTHER MATERIALS RECEIVED: ELEMENTARY

Getting Ready to Read. (Third Edition.) Paul McKee and M. Lucile Harrison. Boston: Houghton Mifflin Company, 1962. Pp. 96. A pre-reading book in the Reading for Meaning series. Teacher's Edition available.

Nepomuk of the River. Roger Pilkington. New York: St. Martin's Press, 1962. Pp. 224. $3.25.

How Would You Act? Ruth and Stan Brod. Chicago: Rand McNally & Company, 1962. Pp. 28. $2.75.

America and Its Indians. Jerome E. Leavitt. Chicago: Childrens Press, 1962. Pp. 220. $5.50.

Kindergarten Fun. Mary Ambrose. Englewood Cliffs, N.J.: Prentice-Hall Inc., 1962. Pp. 80. An activity book.

Breaking the Spelling Barrier. Book I. Sister Mary Caroline. New York: The Macmillan Company, 1962. Pp. 100. Teachers' Edition available.

SECONDARY

The Hunter College High School Program for Gifted Students. Cyril W. Woolcock. New York: Vantage Press, 1962. Pp. 166. $3.75.

Understanding Economic Growth. Marion Daugherty. **Capitalism, Communism, Socialism.** Meno Levenstein. **Economics of the Community.** Myles Boylan. Minneapolis, Minn.: Curriculum Resources, Inc., 1962. Pp. 119, 150, and 100, respectively. $1.00 each. Discounts in quantity. Pamphlets in the CRI's economic series.

The Two Chinas. Oliver Bell, New York: Scholastic Book Services, 1962. Pp. 160. A Scholastic World Affairs Multi-Text.

How to Score High on the Scholastic Aptitude Test and Other College Entrance Tests. A. J. Genua. New York: John F. Rider Publisher, Inc., 1962. Pp. 218. $2.10.

Facts about Merchandise. William B. Logan and Helen M. Moon. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. 304. $5.80.

Challenge of the Universe. J. Allen Hynek. New York: Scholastic Book Services, 1962. Pp. 143. $.50, paper. One of the new Vistas of Science series, a project of the National Science Teachers Association.

COLLEGE

Financial Assistance for College Students: Undergraduate and **Survey of State Legislation Relating to Higher Education.** U. S. Office of Education publications (OE-55027 and OE-500008-61). Pp. 360 and 273. Available from U.S. Government Printing Office, Washington 25, D.C. $1.25 and $1.75, respectively.

Reading Shakespeare's Plays; A Guide for College Students. George R. Price. Great Neck, N.Y.: Barron's Educational Series, Inc., 1962. Pp. 122. $1.25.

GENERAL

Education and Our Expanding Horizons. Edited by R. G. Macmillan, P. D. Hey, and J. W. Macquarrie. Pietermaritzburg, South Africa: The University of Natal Press, 1961. Pp. xlvii + 534.

Paradox and Promise; Essays on American Life and Education. Harry S. Broudy. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. ix + 176. $1.95, paper; $3.95, cloth.

School Law. (Second Edition.) Madaline Kinter Remmlein. Danville, Ill.: The Interstate Printers & Publishers, Inc., 1962. Pp. xxx + 346. $5.25.

Russian Through Reading. Kenneth Brooke and James Forsythe. New York: E. P. Dutton & Co., Inc., 1962. Pp. 344. $4.95. For beginners in Russian.

Helping Your Child Improve His Reading. Ruth Strang. New York: E. P. Dutton & Co., Inc., 1962. Pp. 254. $4.50.

Bulletin Boards. George F. Horn. New York: Reinhold Publishing Corporation, 1962. Pp. 71. $4.95.

The Teaching of Science. Joseph J. Schwab and Paul F. Brandwein. Cambridge, Mass.: Harvard University Press, 1962. Pp. 152. $3.25. Two essays on teaching science in elementary schools and high schools.

Classroom Personalities. Emery Stoops, Russell E. Johnson, and Owen Smith. Montclair, N.J.: The Economics Press, Inc., 1961. Pp. 41. $1.00.

An Anatomy for Conformity. Edward L. Walker and Roger W. Heyns. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. xiv + 103. $1.95 paper; $3.95 cloth.

The Civil War; A New One-Volume History. Harry Hansen. New York: The New American Library, 1962. Pp. 663. $.95. A Mentor book.

The Sense of Shakespeare's Sonnets. Edward Hubler. New York: Hill and Wang, 1962. Pp. 169. $1.25, paper.

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The Education Digest

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THE EDUCATION DIGEST

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Volume XXVIII DECEMBER 1962 Number 4

A National Board of Education, No!

A Secretaryship of Education, Yes!

EARL J. MCGRATH

In School and Society

It appears certain that the educational activities of the federal government will be extended in the years ahead. As these activities expand, it is important that the educational structure in the federal government be made adequate to the emerging tasks. To this end, the proposal has been made that a National Board of Education, composed of laymen, be appointed by the President on a nonpartisan basis to serve long terms. The Commissioner of Education, appointed by the Board, would administer the program of the U.S. Office of Education in accordance with policies established by this board.

I believe a different organizational structure would better serve the interests of the whole enterprise of American education. The following will set forth my objections to a National Board of Education and will present a proposal for a different educational structure within the executive branch of the government.

I wish to make four points in opposition to the National Board.

Earl J. McGrath, a former U.S. Commissioner of Education, is Executive Officer, Institute of Higher Education, Teachers College, Columbia University. Reported from School and Society, *XC (October 6, 1962), 309–12.*

The first stems from more than four year's experience as U.S. Commissioner of Education. As my association with politicians of both major parties increased, my respect grew, with notable exceptions, for the elected representatives of the people in the legislative and executive branches of government. Though my personal views often differed basically from some of theirs, I felt that as a group they tried to reconcile the diverse and often conflicting interests of their constituencies in terms of the national welfare as they, in good conscience, saw it.

In regard to immunity from partisan political interference, anyone familiar with the history and current status of state and local boards knows that many have been the unwilling victims of, or the voluntary participants in, political domination of educational policies and practices. I would be fearful, therefore, that a Board composed of a few citizens might be more susceptible to the influence of powerful professional or political groups than the hundreds of officers of government broadly representative of and directly responsible to the whole people.

FALSE ANALOGY

Secondly, establishment of the Board would rest on a dangerous false analogy. The mere success of state and local educational authorities as effective instruments of public policy does not prove the desirability of a similar structure at the national level. The analogy is basically defective.

The legal control of education within the states and local communities is placed in boards of education which delegate administrative jurisdiction to their appointed officers. To advocate a comparable national agency is tantamount to proposing similar powers and responsibilities for such a body created by the federal government. State or local boards of education properly exercise control over a great variety of matters which determine the character and quality of American education, a type of control our people properly do not want at the federal level.

These boards set and enforce standards for teacher preparation; usually approve selection of textbooks; often determine the amount of money to be spent for schools (and how it will be spent); determine the type of curriculum, the types of school buildings constructed, and a host of other matters directly or indirectly shaping American education.

The federal government, except in its own programs such as those in military establishments, does not and should not have such responsibilities. The National Board, therefore, conflicts with our basic educational and political traditions.

Moreover, the position of the Commissioner of Education is not analogous to that of the state and local superintendent of schools. His functions and the office he administers are different and should remain so. He is not and should not be the executive officer of a National Board which operates a school system with the specific responsibilities as detailed above.

I can understand how a citizen interested in imposing country-wide educational standards and practices might espouse a National Board having these powers. I cannot see how members of the profession openly opposed to any such form of federal control can advocate such a plan.

I can, however, see the need for an *advisory* body, representative of educational and lay groups in all sections of the nation, to take long-range views of America's educational needs and to advise the government and the people on how to meet the needs.

PRACTICAL DIFFICULTIES

Thirdly, there are almost insuperable practical difficulties inherent in the plan for a National Board. Such a group of prominent citizens scattered throughout the country would be able to meet only for a few days, three or four times a year. Even if theoretically desirable, the plan would be practically unsatisfactory.

For a long time, government educational policy will be in a constant state of vigorous discussion and formulation. The issues will be complex, the forces at work diversified and strong, the financial involvement substantial. The necessary decisions will be concerned with large and significant policies. In the main, they will not be the type of administrative decisions a Commissioner of Education could make legally under general supervision of a National Board. They will inevitably involve complicated and almost daily communications at the presidential, cabinet, or congressional levels. These activities only can be carried on effectively by a government officer occupying the highest possible rank who can exercise professional judgment within the political realities of the times. He could not possibly anticipate the complex questions which would arise and thus obtain advance approval of a Board in official session, nor could he canvas opinions in time to make them useful.

Fourthly, in appraising the effectiveness of a National Board, the experiences of other such bodies in Washington ought to be considered. When they have been outside the central structure and executive lines of government authority, they usually have been weak and ineffective. The National Science Foundation illustrates the point. Not until outside forces—namely, the scientific successes of Soviet Russia—increased its prominence on the national scene was this agency able to get the financial support it had sought for many years. But, more importantly, when the critical situation arose in regard to scientific activities of the government, the President appointed a scientist to advise the executive and legislative branches.

This nation does require an educational branch suitably staffed, equipped, and financed to take greater responsibility in dealing with the enormous complex of current American educational problems.

In cooperation with state and local educational authorities and the voluntary national associations, this Office of Education ought to be enabled to assume leadership in identifying, considering, and proposing solutions for the problems which have to be treated on a national scale if we are to remain domestically prosperous and internationally strong.

Instead of the proposed National Board, with almost complete autonomy *outside* of the normal political channels of responsible government, we need a well-organized and supported branch at the highest possible level *within* the government. I strongly urge a closer relationship at the top between our officials responsible for educational planning and operations, other ranking officers in the various departments, and the political representatives of the people.

Without such a strengthened position, education will go on being a stepchild in government, disregarded, ill-fed, and, hence, so underdeveloped that it cannot possibly assume the responsibilities the times require.

To a degree, the present condition of American education is the result of the inconspicuous and uninfluential position of education in the federal structure. Education patently deserves a more prominent place in the whole texture of American life. The very welfare of the nation demands a more, not a less, influential position for education in the federal structure.

If it were a politically realistic proposal, I would recommend that the head of the educational branch of the government be made an independent officer with direct access to the President through cabinet rank. It is my deepest conviction that some day education will occupy that position, and not too far in the future.

REALISTIC PROPOSAL

But since I do not consider this goal immediately realizable, I suggest a structure comparable to the Department of Defense, with a top secretary, and under him a Secretary of Education, a Secretary of Health, and a Secretary of Welfare. All three of the present constituted branches of the Department of Health, Education, and Welfare would thus be placed in a relative position more in keeping with the values which ought to dominate American life.

The educational branch of the government would be raised to a place of greater dignity and more prestige, but, most importantly, of greater capacity to assume leadership cooperatively with the several states and with the other branches of the government in the improvement of all American education.

The position of education ought to be strengthened within the central structure of the government and not moved outside to fend for itself with the sole support of nine citizens, however competent.

American society and American education have come of age. If, as a people, we are to realize our full potential at home and in the larger society of nations, we will need an invigorated educational system with a clearer sense of direction.

A Secretaryship of Education, capable of leading in national planning and in advising on legislation, and with sufficient status and influence to gain public support for educational development consistent with responsibilities of the hour, will better serve our needs than a lay board of education. ●

A Few Skeptical Questions

Teaching Machines: A Demurrer

H. T. FITZGERALD

In The School Review

TEACHING machines—a new force in American education—are coming up fast and strong. A number of educators have already claimed that this innovation shows promise in helping to solve the current national crisis in education. But there has been remarkably little public discussion about the issues involved in their use or, from what one can learn from talking to people, little private thinking.

H. T. Fitzgerald is Director of Education and Training for an automotive parts manufacturer. Reported from The School Review, *LXX (Autumn 1962), 247–56.*

With various mechanical and electronic elaborations, these machines are based on the well-known principle of learning—the conditioning of behavior through reinforcement and repetition. It was first demonstrated with laboratory animals. But instead of the rat and pigeon psychologist's pellet of food or negative electric shock, praise and the satisfaction of getting correct answers provide the reinforcement for human students.

But, humans are capable of learning their way through much more complicated mazes and of memorizing an incredibly greater number of correct responses than laboratory animals are. Therefore, learning a subject like fundamentals of electricity is largely a matter of learning (or giving) a large number of correct responses to logically related sequences of questions that constitute the subject. To put it another way, once a subject has been carefully divided ("programed") into a series of many small bits of information ("steps"), a student has only to learn by repetition and reward ("rapid and frequent reinforcement") the correct answers to a series of questions about the small bits of information. Instrumentation of the sort described here makes it possible to shape a wide variety of verbal and nonverbal behaviors of students. In short, since this is a behaviorist's view, learning is conditioning, learning is behavior. Even thinking is a behavior that can be analyzed and produced to specification.

This may sound surprising, perhaps, when so baldly presented, but it does represent the learning theory of the psychologists who have developed programed instruction. However, the companies now building, improving, and marketing teaching machines will not stress the conditioning aspect because of its uninspiring connotations. Rather, public-school boards and educational administrators are being presented with a long list of advantages that these machines offer.

First, they will save money and help solve the teacher shortage. Problems of discipline and cheating are greatly reduced as students work in separate booths. A missed lesson can easily be made up, and even slow learners eventually complete the course.

Advantages are also seen in the impersonal nature of the machine learning, especially for the hard core who have wrong attitudes toward schooling and the conventional classroom situation. Machines are patient; they do not shame or disparage as human teachers might do, or be perceived to do.

Among other items, it is claimed that a student learns more rapidly and more thoroughly because he is forced to concentrate on material before him and because he gets immediate feedback on his progress. The quality of education in the schools will improve because students will be exposed to programs that reflect the methods of the nation's best teachers, rather than suffering under the possibly mediocre teachers of their community. The time saved by both teacher and pupil can be used for individual counseling and creative work. The uniformity of instruction and the elimination of the factor of subjectivity in grading are also held to be advantages. Finally, in return for his greater productivity, the teacher can ask society to improve his economic position.

Like much earnest, unreflective salesmanship, some of this scarcely merits argument. Besides, with all the cheering, one feels reluctant to criticize, especially before the system has been given a fair chance to demonstrate its merits in actual operation.

A FEW QUESTIONS

Let us be satisfied here with raising a few skeptical questions on the possibility of disadvantages.

Take, for example, the problem of rigidity, or lack of flexibility. Programed learning by its nature requires plodding, step by minute step, across the expanse of a subject or subsubject. Machines do not lend themselves to skimming for an over-all view, to dipping into a future chapter to anticipate development, or to returning to an earlier chapter to check points already made.

Programed learning also resists changes and growth of subject matter. A great deal of effort must be spent in developing any single program, and the result is a logically integrated unity. Like a piece of close hand knitting, it cannot be altered anywhere without unraveling the whole garment. Knowledge, however, and our approach to it are dynamic and change slowly or rapidly.

A live instructor can supplement his syllabus with references to recent research, critical reviews or articles, and related information from other fields. Styles change, too. Those familiar with educational films know how quickly they become dated—and how slowly they are withdrawn from circulation because of the investment involved.

Perhaps the worst rigidity of programed learning is its natural tendency to infallibility. Despite all assurances of authors, we can expect that we will repeat the experiences we have had with intelligence, aptitude, personality, and scholarship testing. When there is a choice between "A, B, C, D, or E (none of these)" and the manual says that "C" is the correct answer, there is no appeal. You may write to the publishers but your protest will be lost in endless baffles, and the most you can hope for is a note expressing "appreciation of your interest" and a promise of possible revision "at some future date, pending research in this and related areas." Meanwhile, in the student's booth, the machines go blindly on, scoring "C" as correct and deducting fractional points for answers marked "A, B, D, or E (none of these)."

A TECHNICAL ERROR

The programers have made a false analogy, a technical error, in attempting to apply the principles of animal learning to human learning. A word rarely has the semantic specificity of reference and effect to persons that a grain of corn or a flashing light has to laboratory animals.

Yet even if the word answers were completely free of error and the wording devised unambiguous and capable of only one interpretation, the single-answer approach to education remains objectionable in principle. This approach assumes that our knowledge of the world is a fixed and orderly body of facts and conclusions. It implies a concept of reality wrapped in separate little packages tied with string, stacked neatly on the shelves of a vast warehouse. It neglects that education is also inquiry, insight, emergence, the development of a critical faculty, and an intuition of the web of interdependent hypotheses and inferences, the structure of abstractions about the seen and unseen that comprises our understanding of the physical world.

Learning is also exploring, conceptualizing, experimenting, interacting, valuing. Reality is also process, flow, a great running together, a barely intelligible, absurd, endless poem, a brilliant light at the entrance to our cave.

Perhaps all this sounds like rhetorical arm-waving, but even on a flatly pragmatic basis the problem of content must be faced. A number of firms manufacturing teaching machines are beginning to compete in the same way the textbook and audio-visual people compete. High-volume sales are important to reduce cost; and in cultivating as wide a market as possible, there will be a tendency to oversimplify subjects, to eliminate anything extraneous.

This approach is what makes the

package programs frequently used in conference training programs in industry so dull. Each problem selected is neatly resolved by a school solution. Similarly, the play for markets and the fear of offending anyone—no controversy—is what makes many textbooks and commercial educational films mediocre.

Admittedly, the best people are now pioneering in the field of programed learning. As the field grows, however, they will be supplemented by the hacks and the hawkers whom we have already met in the field of testing.

In spite of these demurrers, one can expect that teaching machines will achieve a fair amount of currency in the coming years. The cold war has enlisted education as part of our national policy and has provided new money along with new pressures.

Spending money for hardware provides an appealing solution to the demand for more education. Teaching machines have the magical attraction of efficiency, of solving one of the country's pressing problems. And in their own small way they lead to the spread of—if not authoritarianism as such—authoritarian thinking. We are a long way from state control of education, but we already show tendencies toward centralization, especially as we become a mass society and the problem of order, of dealing with sheer numbers of people, becomes acute.

Teaching machines are admittedly based on the theory of reinforcement, of rote learning, of stimulus-response, of a mechanical one question-one answer. This is an intrinsically undemocratic—worse, an anti-intellectual—theory of learning. The next step would be to strengthen "rapid and frequent reinforcement" by, let us say, a mild electric shock for incorrect answers. To this, the student would voluntarily submit because he has been convinced of its efficiency, just as wholly innocent people submit to polygraph tests to most efficiently prove their innocence.

AN APPALLING PROSPECT

There are many who do not experience any distaste in living among and through machines. Such is the temper of the times! Nevertheless, I find the thought of millions of children spending hours each day with millions of machines in millions of separate cubicles an appalling prospect.

There is not much one can say for learning from a live teacher either, considering all his imperfections, or for learning in the company of other live students, considering the distractions of their greater imperfections. One can merely suggest, hope for the occasional nuances, the sparks, the candor, the possibility of sharing perceptions and intelligence and experience, the possibility of learning humanity from humans. Teaching machines only teach (condition) machines.

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The Relationship between Classroom and Society

Open and Closed Classrooms

MARIO D. FANTINI

In The Clearing House

WE are hearing a great deal about the open versus the closed society. In one we have the totalitarian social order (closed), wherein individuals are subservient to the state. In the other (open), we have societies which value the individual over the state. It is said that in one the individual is not free and that he is free in the other.

The conflict between open and closed societies is serious and cannot be slighted. There is, moreover, a parallel between societies and the teachers' classrooms. There are open and closed classrooms which, in a sense, are miniatures of open and closed societies.

To view the schools in this light, one might visit a classroom and find the teacher at the front of the room talking to the class. The class might be listening and taking notes; if an assignment were being made, the students might be writing it down, after which certain students might ask questions. Soon the class is over and a new class comes in. The teacher asks for the homework assignments from the previous day, goes on to some new work, dictates some important facts, asks a few questions on the work which should have been prepared for the day, makes an assignment for the next day, and answers some last-minute questions. A new group comes in and the pattern is repeated.

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On visiting another classroom, one might have difficulty at first finding the teacher. She is in the background, but the students are moving about freely. Various projects are being undertaken by small groups of students, while other students work alone. There does not seem to be a routinized process.

It is my assumption that both classrooms are miniature social systems, in which certain values are being developed because of the conditions established by the teacher. A further assumption is that the values sponsored by these miniature social systems parallel many of the values which underline the open and closed societies.

Also, it is my belief that there are more of the closed classrooms in operation than there are open classroom systems. If these assumptions are valid, a possible conclusion is that our schools are actually developing more closed society values than open. This means that American schools are preparing individuals for a closed society, when it is obvious that the opposite is desired.

Why do we have more closed than open classrooms? For one reason, the closed system appears to be more systematic and more logical. We have inherited this pattern, and the structure is perpetuated. Since in the closed classroom system the teacher is the center of attraction, this becomes a teacher-centric type of arrangement. The individuals, the learners, take their signals largely from the teacher. This can be compared with the closed society, in which the individual takes his signals from the state. Thus, the model projected here is one based on the assign-recite-test sequence.

With this methodology, conformity is being fostered through teacher-ascribed standards, which are supposedly sanctioned as being objective. The individual here is in competition with others. The climate fostered here is one in which the prize is on convergent values. To succeed, the individual must conform. These values breed conformity and ultimately there is a miniature conforming classroom society.

Here are typical student questions in a closed classroom: "How long do you want this assignment?" "May we use other textbooks?" "Do you want a bibliography?" The emphasis is on getting permission to proceed from the teacher. The teacher is the source of "truth." The ironic aspect here is that we are making conformists of bright students, those very students who may be called on to give us the creative leadership we need on a national level.

Some students do rebel against the system. These become "outsiders" and usually fail. Most learners conform to the system and, in the process of conforming, internalize these convergent values which, in turn, become an excellent orientation for participation in a closed society.

Moreover, in the closed system the important thing is to acquire knowledge—that is, you must know *about* subject matter. This is what will be tested, and if the recall is good, the learner will be rewarded. The entire approach is *deductive;* the answers are more important than the *process* for achieving answers. The school administration appears satisfied because this operation is organizationally efficient. Parents do not object since this is the same pattern to which they were exposed.

The open classroom, on the other hand, is a replica of an open society and, hopefully, can develop those values needed to support and advance an open society—that is, freedom with selfdirection. The teacher is largely in the background and the pupils are the center of attraction. This is the pupil-centric structure. The important value developed here is creative selfexpression. The pupil is competing with himself—not with others—so that standards are actually relative to the individual. Critical thinking is being fostered because the process here is *inductive*. It is a search; the process of exploration. The answer is not given first; rather, the learner must attempt to discover new ideas and new concepts which will give meaning to further performance.

In the open classroom, the process is valued as much as the product. Further, the open classroom is more prone to be action oriented than is the closed system, where the learner is passive and the teacher is the dominant force. The open classroom swings the emphasis from teaching to learning, to those conditions which surround learning for each student.

Certainly, there are values to both the open and the closed classroom systems. This is not the major point being discussed here. It is being suggested that an important relationship exists between the classroom and society.

The values of freedom, creativity, and selfdirection, so basic to our society, do not just happen. They are developed, and the classroom is an important laboratory in the process.

The emphasis today on a free society is on the development of creative individuals. Everyone has a potential for creativity and everyone has a potential for excellence in some area of human endeavor. Each person is born with a particular set of abilities which can be developed to the fullest if the school would provide favorable conditions which foster this development. The fruits of his uniqueness can lead to creative expression, whether it be in music, in dance, or in play-acting. This development, it seems to me, is more likely to find expression in the open classroom.

Viewing the education process taking place in the schools, one can observe a kind of continuum from the open to the closed systems. Our education begins with an open system and gradually proceeds to a more closed type of system. The kindergarten is an excellent open classroom model; but, moving through the grades, the situation changes. We are actually creating conditions that stymie creative growth rather than nurturing creativity.

ARGUMENTS AGAINST

However, the open system is not a panacea, and there are certain important arguments against the open classroom systems. The first is that it is difficult for a teacher to control an open system—that it lacks discipline—that there is a lack of teacher control. It is often cited that the teacher who is weak and does not have authority is subjected to behavior abuses because of lack of control.

My answer to this argument is: In an open society the highest form of discipline is not imposed discipline but selfdiscipline; i.e., the internalization of a certain set of values which give meaning and purpose to behavior.

Another argument often cited is that the open system is more apt not to cover the subject matter that needs to be covered; that it is important to outline the course work in a logical fashion and to cover a certain amount of work each day so that, over a period of time, the essentials are covered.

However, knowledge today is expanding at a geometric rate. Moreover, the nature of knowledge is changing. The orientation of many teachers took place at a time when knowledge was not expanding at a geometric rate, and there is no guarantee that the teacher has kept up with changing perspectives in his own discipline. Consequently, it is not knowledge that is important but the ideas and concepts which underlie the change in the framework of knowledge.

This is the very thing that an open classroom seeks—to give the person, through the process of inquiry, the method for discovering the big ideas which have given meaning to change. The open classroom stimulates the process for development of such values as freedom, critical thinking, selfdirection, creativity, and cooperation—those very values which give meaning and direction to democratic functioning. The students experience patterns of behavior more like the ideals of an open and free society in which they will eventually become members.

The question arises, "Why are there not more open than closed classroom systems?"

This is a complex problem. One answer is that it would necessitate a new orientation for most teachers. It is actually a much more difficult challenge to create the learning environment of an open classroom. For example, as a new teacher moves into a school situation he is usually not in a position to initiate change but must go along with the norms of the system. The process of shifting from a closed to an open classroom situation is often fraught with hazards for the beginner. It may be that after a time the beginner succumbs to pressures of the system.

More likely, however, the closed system is found to be the easiest way out. It seems to be more definite, the teacher sees the logic of the approach more readily, he feels more satisfaction in having covered a given body of subject matter and in testing the student's learning. He seems to get more reward out of knowing his place in teaching. The open system is difficult to assess in terms of the teacher's role.

Education is playing a vital role in terms of national purpose. There is an awakening of the importance of education in the total process of developing an ideal type of society. Sooner or later we must come to the conclusion that schools have specific and major functions in society—functions concerned mainly with socializing all citizens to perform effectively in society. ●

A Profile of a Teacher

A Free but Disciplined Classroom

ANNE HOPPOCK

In NEA Journal

DAISY BORTZ teaches the fourth grade in Washington Township, New Jersey. She has about 30 lively children representing a good cross section of the community.

Daisy's classroom is a place where children do things. They come together as a total group to plan, to think together, and to enjoy, but much of the time they work in small groups or alone.

How can Daisy be sure they are all working and learning? How can she keep all the threads in her fingers?

From a wealth of experience, Daisy has developed convictions about how to operate a free but disciplined classroom.

The best kind of discipline, Daisy believes, is achieved when children are deeply absorbed in their work. The task imposes the discipline. From the opening of school, Daisy works to promote the idea that learning is going to be exciting.

There are many things around the room to encourage exploring and thinking. Next to the aquarium and terrarium the children find books on how to start such projects. Miniature animals and birds invite handling, hobby books and books on science experiments are grouped on a rack, easels and a typewriter are ready for use.

As the children first begin to produce, Daisy is careful not to impose her standards, for she knows how easy it is to discourage children before they really take hold. She will show interest and enthusiasm. Later, she will help them evaluate in order to improve.

Daisy believes in planning with the children and having plans always before them. This tends to organize the day, to prevent wasted time, and to put responsibility on children to use time well. If cleanup chores are finished five minutes

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early, children and teacher check planning to use this bit of time.

This never-a-wasted moment idea is important to a well-disciplined classroom, Daisy believes. Trouble starts when children have to wait. In Daisy's classroom, there is no standing in line, no sitting and waiting in the morning for exercises to begin. When a child comes in, he begins work on an uncompleted job or starts a new one. At the end of the day, the class summarizes where it is and teacher and children put a skeleton plan on the board for the next day.

Daisy believes that arranging the classroom as a real workroom is one way to assure order. Work centers stocked with necessary materials are placed stragetically about the room, preventing children from clustering in large groups and eliminating need for instructions about location of materials and work. Desks are arranged in blocks to provide space for the work centers.

CONFERENCES

Daisy believes it is important to know and understand her pupils. She holds a child conference before having parent-teacher conferences. In preparation, she has each child evaluate his own progress. Sometimes the child writes a confidential letter about things he thinks he does well, things which are difficult for him, personal problems he has.

The child writes freely because he knows Daisy will destroy the letter after reading it. This letter forms a basis for teacher-child conference, during which he helps decide what she will say to his parents and what he'll work hard on during the months ahead. The child talks over the conference with his parents, who can then talk comfortably with the teacher.

Daisy doesn't limit her communication with children to planned conferences. They learn to know that they can come to her any time they need her. Sometimes they interrupt something which seems important. "But," says Daisy, "even in the middle of a class you have to look at a child's face and see how great his need is before you tell him to wait for a better time."

Daisy knows that children are frequently unhappy, make others unhappy, and do not learn well because they believe no one respects them or cares about them. She is convinced that children must feel good about themselves to be good. She can cite examples of children who might have become discipline problems if not helped to achieve selfconfidence and selfrespect. The examples include Philip, a sensitive boy who adopted a bullying behavior as a coverup; Larry, an unhappy boy whose "out-of-this world" behavior had made him a target for jokes; and Theresa, dirty and ill-clad, who was rejected by other children and neglected in spirit and body.

All responded as understanding and skill effected changes and let the children gain the confidence and selfrespect that led to respect and acceptance from their classmates.

Daisy believes the teacher must always be in control of the situation and must therefore set limits. She wants children to have all the freedom and responsibility they can take, as fast as they can take it, but no more.

"They have to know what I, as a responsible adult, expect. They have to learn what we believe in this room and why. I involve them in making the rules we live by, but once the rules are made, they must learn to abide by them."

Sometimes Daisy gets cross and shows it, especially when the children do foolish or unkind things they have previously agreed not to do. "I'm living with them in the classroom and I want them to know I care a great deal how we live," Daisy says.

When a work group gets a little noisy or disorganized, Daisy goes to the center of the disturbance, finds what is wrong, and does a little redirecting. Frequently a child who is starting trouble responds to her arm around his shoulder or a little rub on the head.

"I often sit on the big piano bench to work, and I'll beckon a child who needs to think a little to come and sit beside me. I make a note of recurring problems, try to find reasons, and work with the child privately."

Daisy doesn't send a child to the office but sometimes arranges to go with him to talk things over with the principal, who is good at working with confused or disturbed children.

Punishment? Daisy doesn't seem to use it much. "I like children," she says. Liking is the first step to understanding, and understanding is the most effective means of creating a favorable learning climate in the classroom. ●

- When Junior was asked how he liked his teacher after his first day at school, he replied, "I guess I'll like her. But she sure is spoiled! She wants her own way all the time, and I'm afraid I'm going to have to let her have it."—From *Florida School Bulletin.*

- If a doctor, lawyer, or dentist had 40 people in his office at one time, all of whom had different needs, and some of whom didn't want to be there and were causing trouble, and the doctor, lawyer, or dentist, without assistance, had to treat them all with professional excellence for nine months, then he might have some conception of the classroom teacher's job.—*Donald D. Quinn,* Fresno, Calif.

- Duties are tasks we look forward to with distaste, perform with reluctance, and brag about ever after.—From *Mississippi Educational Advance.*

What About Those Involved?

Human Considerations in Team Teaching

ARTHUR R. KING, JR.

In Journal of Secondary Education

THIS discussion is based on experience gained from a close relationship maintained with a number of team-teaching experiments conducted during the past five years by schools cooperating with the Claremont Graduate School and supported by a grant from the Ford Foundation. All of these teams were composed of from two to seven teachers, the most typical being three or four.

Our concern here is with considerations affecting the *people* involved in the team-teaching schools (teachers, pupils, administrators, counselors, and parents), not with the considerations of curriculum design, staffing, and problems of educational logistics.

Experience teaches us that a number of important results of a change in structure can be anticipated, while a number of others cannot. This fact augurs for flexibility of design, humility in proposing change, and willingness to modify initial assumptions and structure during the field trial.

Team teaching breaks down, rather drastically in some of its models, the accustomed format for instruction. Flexible uses of time, space, and personnel are permitted. The teacher-pupil relationship is modified. The format for curriculum development is changed, the responsibility change being more strongly delegated to "energy centers" of teacher groups or teams. A hierarchy of teachers is usually included.

Each of these changes makes a number of assumptions about the fitness of this new format for persons involved in the educational process. Since team teaching is an attempt to change these traditional and understood ways of teaching, it is reasonable to expect an immediate or delayed reaction, both rational and emotional, to the proposal.

One necessary assumption behind team organization is that the established relationships will be healthy for teachers. The organization should foster: in-service growth, effective use of energy, a good start for the beginning teach-

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er, curriculum development, and teacher creativity.

Preliminary data suggests that team teaching tends to accomplish these ends. It has proved to be a successful format for the beginning teacher. The close working relationship with experienced persons has been an asset. The few exceptions occurred when the team leader was unable to fulfill his role effectively, or when there was antagonism within the team.

Experienced teachers proved to be effective team members, with many finding the new relationship and instructional format stimulating and contributive to change. Those who could be classified as "weak teachers" were the only recognizable group appearing to consistently disrupt teaching teams. In contrast, the "individualist" teachers, whom it was assumed might rebel against teaming, typically failed to do so and were often outstanding members.

The experiments found that teachers were willing to accept differences in status associated with establishing team leaders, senior teachers, or aides, as long as full participation was welcomed from all and the status leaders did not assume the right to set team standards and determine procedures.

Experience suggests that status of teachers on a faculty should be considered in forming teaching teams, with at least one faculty member of established respect being on each team.

The method of assignment to teams has created some concern among teachers. Teachers like to make the decision to participate themselves; arbitrary assignment without consultation is resented, even by teachers who enjoy the team situation.

An innovation in most team-teaching schools is the presence of persons on a faculty with higher status and role definition than that of the typical secondary teacher, excepting the traditional department head or coordinator. Some attention to this new leadership structure within the faculty should be given in planning. A notable fact is that we do have in our schools teachers quite capable of leading a group of their peers, persons with executive ability and the capacity to weld a group of teachers together in common purpose.

It seems important to define the leadership role early in the planning, specifying whether leadership will be formal or informal and establishing such procedures as to whether the leader is to share in appraisal of teacher members, to discipline, to require reports, to screen for membership, to recommend for retention on the team.

STUDENT'S VIEW

The student's relationship to the team presents a number of important aspects. A big question with students, and a bigger one with parents, is, "Will participation with a teaching team remove me (my child) from normal educational and social relationships with other students in the school?"

The experience has shown this not to be a significant source of permanent concern. There have been a few exceptions. Students and their parents will need to be assured on this point and efforts made to schedule students part of the day in classes with membership drawn from the larger student population of the school.

Pupils seem almost universally pleased to be part of a newer, different, and "better" way of learning. Team membership tends to satisfy the highly aspirant secondary student, who sees in the team a better form of education and college preparation. Since the team at the high-school level is composed most typically of students with like abilities, the anxiety over grading practices in honors or advanced sections of the subject is ever-present. Students must be assured that they will not be penalized for being in a special section.

For the minority of pupils having an unfavorable view of the team, the problem universally centers in the relationship with a teacher. The multi-subject team is a unit, and reassignment is most difficult. This can be an advantage in that students tend to stay with their initial curricular choice and "slug it out" in spite of personal or academic difficulties.

Another element of school-personnel relations concerns teachers who are not team members. Schools planning to introduce team teaching should consider the entire faculty and staff as an important supporting and contributing element. Successful teams have been weakened or discontinued due to lack of acceptance by peers in the school.

It would seem essential to gain wide participation by the faculty, especially the opinion setters, in the initial plans for the change; and to keep the teachers informed of developments—successes, problems, and failures. The entire faculty should adopt the experiment as a school project, with the assumption that any teacher may be a participant in a later year. In practice, most nonteam teachers in an experimental school have been favorably disposed toward the team idea and have indicated interest in taking part later.

ADMINISTRATOR'S CONCERN

In the area of school administration and the teaching team, the Claremont experiments have demonstrated that the operation makes a significant change in the job of the principal and other school leaders. In the typical school organization, each teacher is directly responsible to the principal, with less defined relationships to counselors, curriculum workers, and to department heads. The teaching team creates a new type of human group within the school, the "teaching unit" with its own membership, power structure, capacity to motivate. Its relationship with the principal tends to be as a unit, with the team leader acting as spokesman.

Experience demonstrates that teams present many more proposals for changes of all types than do the equivalent number of teachers in a conventional organization. In a sense, the principal becomes a leader of teams, providing logistic support, encouragement, consultant help, and quality control. These lines of authority and communication need to be established and kept clear.

Multisubject teams which work with students for a significant part of the day definitely take over much of the typical work of the guidance counselor—program advisement, personal and educational counseling, parent consultation, and diagnosis. It seems highly desirable for the counselor to adopt a new role as consultant to the team.

While the teaching team is a promising means for in-service curriculum development and many examples of excellent curriculum development have been found in the majority of the schools, neither the apparent organizational patterns of the school nor the leadership personnel provided are transparently related to this success. It is not perceived as yet how teams might best work with general and special subject consultants.

The parents have displayed a favorable attitude toward team teaching. This is demonstrated by experience with dozens of teams and hundreds of students in approximately 15 schools. The most common parent report has been that the child is progressing better in his subjects, is more enthusiastic about schools, and is working harder.

Some form of parent orientation and preparation seems warranted. Successful means of accomplishing this have taken the form of memoranda, meetings prior to the team experience, and joint student-parent assemblies in the evening.

Although the team-teaching experimental units in the Claremont Program have shown considerable education potential, it would appear to be far too early to freeze our designs. Each hypothetical structure carries within itself the characteristics which may lead to its own destruction. Experience in the field over a period of years will be necessary to decide whether or not team teaching is to be a firm part of the "new education." •

IN the team-teaching program at Reynolds Junior High School, Lancaster, Pa., the English teachers read and grade papers that students prepare for other subjects. The papers are graded for content by the other subject teachers, and for the manner in which they are written by the English teacher. As a result, the English teacher is able to assign less composition, and the students are said to be getting better grades in all their written work.—*School Management.*

Requirements of a New Curriculum

Meeting the Challenge

LAVONE HANNA

In What Are the Sources of the Curriculum?

Lavone Hanna is Professor of Education, San Francisco State College, California. Reported from What Are the Sources of the Curriculum?, *a report on a symposium published by the Association for Supervision and Curriculum Development, NEA, 1962, 48–59.*

THE chief criterion of the value of the curriculum today seems to be, "Is it as good as the Russians'?"

This, of course, would assume that Americans want the product of our schools, the graduates, to behave as the graduates of Russian schools behave. This is more than a paradox, for the same people who want our educational system to be modeled on the Russians' argue that such a controlled curriculum with heavy emphasis on science, mathematics, and foreign languages is needed to strengthen our national security and defeat the selfsame people the schools are asked to emulate.

Curriculum directors would be first to say that the curriculum of the pre-Sputnik era was not satisfactory. Even if it were, it would not be satisfactory today, for this is a different world posing different problems and requiring different knowledges and skills.

Also, the growth of knowledge has been so great in recent years that content, long accepted as basic knowledge needed by everyone, has had to give way to new concepts and new approaches.

We must still seek an answer to Herbert Spencer's question, "What knowledge is of most worth?" But the answer must be in terms of knowledge of most worth for children living in today's world and facing the totally unknown world of the future, not that suitable for yesterday's world.

The task of curriculum workers is to provide learning opportunities which will help all children and youth achieve the greatest possible fulfillment of potentialities. Democracy prizes and demands a different kind of citizen than a totalitarian society does; it would be foolhardy to model our curriculum on Russia's or to expect the same kind of behavior from our graduates.

Because the production of fully functioning democratic citizens is our goal, it is essential that we state clearly and reach agreement on the kinds of behaviors such persons exhibit. These behaviors provide the criterions against which to judge the success or failure of the curriculum.

A curriculum designed to produce fully functioning democratic citizens must be based on: the demands of the society in which the learners live; the needs, interests, maturity, goals, and ability of a particular child or a group of children at a particular time in his or their development; and the democratic heritage and values which society cherishes. These furnish the three dimensions for a curriculum design and can be said to answer the three questions of *what, when,* and *how* to teach.

Furthermore, a curriculum, to be functional in the lives of boys and girls, must have significance and meaning to them in terms of each individual's goals. It must provide for emotional, social, physical, and intellectual development of the learner. In the learning opportunities provided, there must be reflected current knowledge about how human beings learn. And the curriculum must permit children to live democratically so that they become so imbued with attitudes and competencies needed by democratic citizens that they behave democratically because that is the kind of person they have become.

Today, rapid change in every aspect of life has become the outstanding characteristic of our century. The accelerated tempo of change hurls man into one new age after another before he has time to absorb or adapt to the previous one. The result is that man is confronted with a host of complex and far-reaching problems with which he is ill prepared to cope.

Already some of the inevitables of the new era, for which youth need to be prepared, seem clear. They will need much wisdom to solve problems caused by an ever-increasing domination of life by science, automation, and technology; to live in a world where the increased prestige and power of the colored peoples of the world make segregation and discrimination impossible, and where the "revolution in expectations" of the masses in underdeveloped areas demands equal opportunity and an end to poverty and ignorance; to design international law to insure peaceful solutions to international conflicts; to solve the numerous problems caused by the continued population explosion; to understand and have empathy for people with a wide variety of cultures; and to adjust to life in an interplanetary era.

A BIG TASK

The task of educating today's youth to face this unknown future with intelligence and confidence well may fill educators with terror. It requires a new curriculum, a focus on important concepts, and an approach which will free the learner to discover new meanings and solutions to problems. It requires the cooperative effort of everyone. The task is too big for educators to tackle alone.

Major curriculum changes in science have already been made through efforts of groups sponsored by the National Science Foundation. The mathematics curriculum is being revolutionized as educators and mathematicians cooperated to develop new ways to overcome difficulties children experience in understanding mathematics and to help them to discover for themselves mathematical concepts and generalizations. Similar cooperative efforts have been focused on the social studies.

These are advances, but since problems seldom stay within the boundaries of a single subject discipline, the curriculum specialist has the responsibility of organizing content in such a way that students will see the interrelatedness of subject-matter areas and will use data from all disciplines in their search for solutions to problems.

BASIC CONCEPTS

The following basic concepts, reflecting the 12 categories in which today's problems fall, are here recommended for defining the scope of such a problem-centered curriculum and for providing a framework around which learning experiences at each grade level can be organized: nature of change; population expansion and mobility; science, technology, and automation; interdependence; role of government; intergroup relations; international relations; conflicting ideologies; culture and cultural change; conservation of resources; human behavior and personal development; and conflicting values.

The educator must have a firm grasp of the subject matter he is to teach and knowledge about the forces operating in today's world. He must also understand the learners in his class at their particular stages of development and in relation to the culture in which they live. Recent research has increased greatly our knowledge about human growth and development and has given us new insight into the way children learn and into the effect of the selfconcept on learning.

The self, according to perceptual psychology, determines what we see, what we hear, and what we learn. Children learn who they are and what they are by the way they are treated. Teaching becomes primarily a task of helping children perceive differently and discover personal meaning in what is to be learned. To do this, the teacher must know each learner well and see him and his world as he sees them.

It takes patience, understanding, and empathy to change negative selfconcepts to positive ones. It means individualizing instruction so that everyone can experience success. It means re-examining our grouping system and instructional practices so that no one will feel degraded, inferior, or unwanted. It means providing learning experiences to which each learner can commit himself and through which he can have intellectual activity which challenges him and nourishes his intellectual growth.

Since persons with negative self-concepts, who feel unwanted, unworthy, unable, and unacceptable, are the ones who fill jails and mental hospitals, then helping children build positive selfconcepts is also a social responsibility and is an essential part of the curriculum.

The central purpose of American education, according to the Educational Policies Commission, is the development of rational powers which enable the individual to achieve his personal goals and to fulfill his obligation to society. "The purpose which runs through and strengthens all other educational purposes—the common thread of education—is the development of the ability to think."

Schools which accept this purpose as the core purpose of American education must give pupils continuous opportunity to solve problems—to analyze, to hypothesize, to gather, evaluate, classify, compare and synthesize data, to generalize and discover answers for themselves, and to test out their conclusions in new situations.

In addition to the development of the ability to think, the schools need to provide learning experiences which foster other characteristics needed by democratic citizens, including: work in harmony with others on common problems; be responsible and carry out assumed tasks to the best of one's ability; respect law and constituted authority; and be committed to the ethical values of honesty, integrity, and loyalty.

A belief that schools can help children develop this high type of moral behavior is expressed by Robert Havighurst, who says such development is fostered by the examples set by teachers and student leaders, and by providing opportunities for reflective thinking in applying moral principles to human behavior.

Values and principles have meaning when they are the result of thoughtful choices rather than when they are imposed by outside authority. Since our values and ideals are such strong motivational forces in our lives and determine the kind of people we are individually and collectively, values must be an integral part of the curriculum and must govern the way we teach and the way we treat those we teach. ●

● Dressed in cap and gown on graduation day, the young man handed his diploma to his father with this remark: "Well, I finished law school to please you and mom. Now I'm going to become a motorcycle cop like I've been saying since I was six."—*North Carolina Education.*

● The reason that people who mind their own business succeed so well is because they have so little competition. —*Midland Schools.*

● Don't worry about finding your station in life. Someone will tell you where to get off.—*Denver Post.*

Report on a Four-Year Experiment

Secretarial Help for Classroom Teachers

DAVID T. TURNEY

In Secretaries for Teachers

IN the summer of 1957, staff members of George Peabody College for Teachers began a series of investigations designed to test the usefulness of secretarial help for classroom teachers. The project, supported by a grant from the Fund for the Advancement of Education, involved two public-school systems in different geographical locations in the United States—Tennessee and Missouri.

After four years of field experimentation, the values found in this support for the teaching process are established clearly. An analysis of the major findings corroborate not only these values but also the thinking that prompted the investigation. This thinking was concerned with the following four areas:

Communication. — If effective communication is one of the critical variables in the teaching process, it is reasonable to believe that a facility designed to improve communication between teacher and pupil will improve over-all teaching effectiveness.

Records.—If pupils are to be educated effectively in groups, the teacher must have an efficient means of collecting, recording, and filing data on the individual progress of each student without undue loss of teaching time.

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Preparing materials.—If essential content is distributed among a wide variety of materials and activities, secretarial service—by assuming a part of the work load of arranging for and providing this variety—would enable teachers to expand the range of educational content.

Individualizing instruction.—By facilitating the production of instructional guides for pupils and supplying individualized content materials, secretarial service would allow teachers to re-adjust teaching practices, making possible an increase in individualized instruction.

From the many records and statements collected in this study, it is evident that teachers receiving secretarial assistance believe this help to be an important adjunct to improved classroom instruction. The service was seen as resulting in specific advantages to the pupil, as being incorporated easily into teaching designs, and as being a more effective aid to better teaching than a number of other procedures. The records confirm the fact that clerical work is a normal part of classroom teaching. The value placed by teachers on the help provided by instructional secretaries clearly indicates that many duties may be successfully delegated to competent secretaries.

Secretarial service proved effective in many areas of communication. Improved teacher-pupil communication resulted from improved planning, increased use of study guides, and expanded use of individual conference techniques. Also, records of sharing materials with other teachers not involved in the studies suggest that intrastaff communication was reinforced. In the area of teacher-parent communication, teachers reported that gains occurred, especially when secretarial help provided home-study assignments which included written instructions to parents.

The extent to which teachers used secretarial service for collecting and ordering content materials seemed to depend partly on availability of learning resources and services in each building and in the system. However, the use of secretarial service in relation to content proved one of the most potentially productive of uses. Collections of student writings duplicated by instructional secretaries could support basic content at any level of instruction—literary productions, reports, and studies of various kinds are transformations of content valuable to others not involved in their production.

In evaluating the results of secretarial service, it was found that the creative teacher was more able to produce in quantity the unusual constructs which "unlock" content for their pupils. It is clear from data collected that secretarial help supported many such efforts, although no causal relationship is implied here. Teachers who used the service to furnish varieties of content materials indicated generally that they would not have accomplished these productions without such service.

AIDS INDIVIDUALIZED PRACTICES

The data collected indicated that secretarial service was used widely in the support of individualized instructional practices. Teachers using a diagnosis-treatment approach to learning problems specified the services of the secretary as a critical factor in the success of their efforts. Secretaries were able to complete summaries and simple analyses of test data that helped teachers arrive at sharper diagnoses of educational problems.

Through their discharge of clerical responsibilities, the secretaries released the time of teachers for study and individual conferences, and they prepared prescriptive materials for the teacher to be used in problem solutions. The amount and variety of directed study materials produced by the teacher-secretarial team supports the contention that additional time for individual work with pupils became available as more efficient management of group-study processes developed.

It should be remembered that availability of secretarial service is no guarantee that an increase in the individualization of instructional procedures will occur. The evidence collected merely documents such use of the service supplied.

As a result of the field testing undertaken in the two projects, the following conclusions can be advanced:

Employment of instructional secretaries for classroom teachers is an effective way to relieve teachers of routine clerical duties, thus making possible more effective teaching through a redeployment of time.

Secretarial assistance tends to redirect teaching activities along one or more of the following dimensions: toward an increase in time devoted to planning and professional study; toward an increase in time devoted to individual pupil counseling and guidance; toward a greater use of written communication and a corresponding decrease in oral instruction; toward an increase in variety of instructional materials; and toward more adaptation of content materials to specific needs of groups and individuals.

The value placed on the service by teachers who receive secretarial help is sufficiently high to warrant wide testing of this staffing pattern by school administrators and school boards.

While the study provided no evidence of significant gains in educational achievement by classroom groups whose teachers had received secretarial assistance, many instances of marked individual progress are recorded in the data. It seems evident that the provision of secretarial help to teachers has resulted in additional gains in achievement by many individual pupils even though these gains do not, in the aggregate, produce a statistically measurable effect.

The study discussed here rests on the assumption that the teacher, while possessing the necessary skills and knowledge needed for effective instruction, lacks sufficient time or resources to employ fully his professional equipment. The effects made to support the redeployment of teaching time and to provide improved communication facilities through the provision of secretarial help to teachers have been successful. The teachers who participated in this study were, as a result of the help provided, able to use skills, knowledge, and insight to greater advantage with their pupils and to create new and more effective working procedures by utilizing the additional time released from routine tasks for professional work. ●

ANYONE can do any amount of work, provided that it isn't the work he is *supposed* to be doing at that moment. —*Robert Benchley.*

The Lay Teacher in Catholic Education

WILLIAM H. CONLEY

In National Catholic Educational Association Bulletin

THE Catholic layman has made, is making, and will continue to make a significant contribution to Catholic education.

The first contribution is in manpower. In 1948 there were 7,422 lay teachers in our elementary and secondary schools. By 1960 the number had increased more than five times (537 percent). During the same period, priests and religious had increased only 37 percent. The increase in lay teachers was necessary to provide staffs for an elementary-school enrolment that grew by 90 percent and an increase in secondary-school enrolment of 83 percent during the 12-year period.

Today, the ratio nationally of lay to religious teachers is three to eight in elementary schools and one to three in secondary schools. In Catholic colleges and universities there are two lay teachers to every priest or religious. It is safe to assert that the lay teacher is here to stay. It must be made possible for him to play an increasingly significant role.

The educational contribution the lay teacher is making is equal in importance to the manpower contribution. The lay teacher realizes that to carry on an apostolate in the schools he, as well as the religious, must achieve professional excellence. Another motivation is a practical one, the financial rewards for professional growth. As a result of these two forces he strives to bring to the school academic training and experience from a variety of universities and situations. Because of his mobility and his opportunities for scholarships and fellowships, the lay teacher can attend institutions which might present difficulties to religious and clergy.

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Some fields of study, particularly at upper levels, are more in line with lay activities. Business and the social sciences are two examples. It was in the field of commerce that the layman first made a breakthrough in Catholic teaching. Since commerce and social science are in the area of the contemporary world, it should be expected that the layman would bring to them special competencies because he is a layman. These special competencies make it possible for the layman to adapt discourse to his audience most effectively, which is of the essence of teaching.

The layman also has a role to play in intellectual and professional activities outside the school. Cooperation with peers in other institutions in scholarly and professional organizations is especially within the sphere of the layman. A most important reason is that frequently it is easier for scholars in the various fields to work with laymen. In the majority of cases there tends to be greater freedom of exchange among lay people. Laymen are free to follow the open tradition of scholarship without reference to the needs of a community and without references to permissions and approvals of superiors.

A third contribution to Catholic education that can be made by the layman in our schools is of a social nature. The layman who is in the world and is able to interpret the secular to the Church must also be able to interpret the sacred to the world. It is through this that the layman may be able to meet one of the objectives of education—the development of values which will influence the secular world.

PROBLEMS

In making these contributions to Catholic education there are some specific problems which will confront the lay teacher. One is the partial segregation which continues to exist.

The segregation results from three causes. First, lay teachers and religious teachers are members of different subcultures. The lay teacher, completing his school day, returns to his family where demands are placed on him, where his recreation takes place, and where his continuing growth goes on. The religious teacher, at the end of the day, returns to the religious community where one has definite responsibilities, quite different from the layman, where one's time is frequently regulated, and where recreation is with peers engaged in the same kind of work. Lay and religious live in different worlds. They converge in the school and, with all the goodwill possible, integration and understanding are sometimes difficult.

Both lay and religious contribute to the problem. The lay teachers eat by themselves, discuss problems together, complain about the school to each other, and sometimes develop the historic attitude that the lay teacher is a second-class citizen in the Catholic school—although, in the vast majority of cases, this is not true.

The religious teachers go to their quarters when unassigned, discuss the problems of the school among themselves after hours—frequently failing to communicate with lay teachers. A wall of separation, sometimes low and sometimes high, between lay and religious teachers results. The segregation is really a sociological problem, which must be solved. A condition necessary to solution is burial of the dead past with its inferiority complexes of lay teachers and with its attitude of religious that the laity were tolerated helpers until suitable religious could be made available.

A second problem is one of tension growing out of the fact that ownership or control of schools and colleges, and responsibility for operation, is in the hands of a community or diocese. This is a reality not likely to change. It creates, however, attitudes which lead to tension. These are not universal attitudes, but they exist in sufficient frequency to warrant attention.

A third problem deals with the possibilities of lay-teacher advancement, not only in salary but in positions of leadership. If a layman is to have a career in Catholic elementary or secondary schools, there must be opportunities for advancement to supervisory and administrative positions. Restricting these positions to the clergy or members of the religious community leads to the attitude that there is no future for the talented layman. In the long range, this may be the most serious problem to be solved.

In addition, there are several practical problems worthy of consideration. Three major problems are salaries, fringe benefits, and conditions of service.

Salaries have advanced rapidly in recent years until they now compare favorably in similar institutions at the lower salary range. At the upper levels, salaries in Catholic schools still leave much to be desired.

In many cases Catholic schools have not provided adequately for fringe benefits, partially because of lack of understanding of tax problems of the layman.

Conditions of service are another problem. Because we have improved economically does not mean that we have solved the problem of cost. In general, teaching loads in our schools are somewhat higher than those in other institutions. Heavy teaching loads make it very difficult for our teachers, lay or religious, to carry on the creative activity which is necessary for intellectual growth, professional development, and the contribution we should be making to human knowledge.

Another condition of faculty service needing attention is that of involving the faculty in the making of educational policy. There is a lack of acceptance, in many cases, of the layman as a professional equal who can make a significant contribution to educational policymaking and to long-range planning. Where this exists, there cannot be the true professional atmosphere which makes teachers a part of an educational team assisting in the evolving of ideal conditions for student learning and student intellectual growth.

Understandings within our schools by the clergy and religious of the laity, and understandings by the laity of the clergy and religious, must be brought about. What is required is a positive effort on the part of each group, and the two groups together, to gain this understanding. ●

A School Traffic Hazard

Our Chauffeuring Parents

SAM YAKSICH, JR.

In Safety Education

AT three in the afternoon, the street in front of a school near my home is a scene of chaos. Honking horns, screeching brakes, irritated voices shouting confusing directions, and, in the midst of cars double and triple parked, small children are trying to make their way home.

The situation is caused by parents who drive their children to and from school. While the problem intensifies in direct proportion to the severity of threatening weather, it exists all the time.

Parents do not deliberately create hazardous conditions for their children. When made aware of the situation, the parent is usually horrified. But here are some dangerous practices of which parents are guilty:

Loading or unloading children across the street from the school, which encourages them to enter or leave the car on the street side and to run across or dart around the car back to the curb.

Loading or unloading in mid-block across the street from the school, where there are no cross walks, lights, patrols, etc. This tempts children to cross at mid-block.

Double parking, which obstructs the vision of walking children, encourages the parent's child to walk from between parked cars, and sets a bad example of disregard for the law.

Stopping too close to the crosswalk, which is unfair to children using the crosswalk and to the patrols trying to aid them.

Stopping in areas designated for loading and unloading school buses, and blocking service driveways. This creates hazards and contributes to traffic jams.

Many school administrators have tried various means of solving the parent pick-up problem. Some have given up in despair. Large sums of money have been spent (funds which could have been put to more important use) to construct special driveways and service areas—only to find that parents find new ways of creating traffic confusion.

The picture is not all black. Some schools, slowly and surely, are mak-

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Sam Yaksich, Jr. is Manager, Pedestrian and School Safety Division, Traffic Engineering and Safety Dept., American Automobile Association. Reported from Safety Education, *XLII (October 1962), 3–5.*

ing progress in alleviating the situation.

In Philadelphia, offending parents receive a simulated traffic ticket for parking violations. Tickets are used only at the request of a school principal and are given by officers of the pedestrian education program with the approval of the Philadelphia Police Department.

In addition, Philadelphia schools are making a concerted effort to reach parents through their children. Safety patrols address the younger children and urge that reminders be carried home. This program has proved effective, probably because children are quite willing to "tell" parents about driving errors.

In Buffalo, staggered school-dismissal periods provide a partial answer. Also, parents are requested to pick up children on side streets or in the school parking lot. This relieves congestion in the streets. However some cities, having tried this parking-lot-pick-up plan, discontinued the practice because of near accidents and jams in the parking area.

Other attempts to deal with the situation include: construction of sidewalks offset so that children do not have to cross the school's driveway; prohibiting loading and unloading of children adjacent to school grounds (pupils disembark across the street and cross at a supervised crosswalk); and encouraging parents to establish pick-up points a block or two away.

PTA groups have been attacking the parent pick-up problem on a nationwide basis. Photographs and movies of congested scenes are taken and distributed for showing. This technique has been less than successful because the embarassment of certain parents made every one uncomfortable and it did not achieve the desired result.

After reviewing the various attempts to solve the problem, it becomes apparent that no plan provides the ultimate solution. Each school must provide its own answer. However, school authorities agree that expenditure of money, new facilities, or traffic control devices will *not* be effective without parental cooperation.

Parents must be made to realize that it is best for their children to be independent; children must be permitted to "go it alone" to and from school. Many parents drive their children to school in the belief that it is safer to ride than to walk. The truth is that more children are injured on the way to school in cars than are injured while walking.

Nevertheless, parents will continue to chauffeur their children, some because they must, and some because they cannot be convinced that it is better for the child to walk.

In the final analysis, the responsibility for the parent pick-up problem rests squarely with the individual parent. But school personnel cannot sit idle while children are being hurt. It is their duty to fight the problem by making parents live up to their responsibilities. ●

Wanted: Basic Schooling for 8.3 Million Adults

The Illiterate American

In Overview

ONE result of efforts to improve all levels and areas of education has been a surge of governmental and private action to wipe out illiteracy. More money and more leadership are needed to get the movement rolling in high gear; but once the groundwork has been laid, the brunt of responsibility for the day-to-day operation is likely to fall on public-school administrators and their staffs.

The illiterates receiving instruction today (less than 50,000 last year) are only a small fraction of the estimated 8.3 million Americans over 25 who are classified "functional illiterates" — persons who have not completed grade four. About 2.8 million of these have *no* ability to read or write.

These statistics compiled by the Office of Education from 1960 Bureau of the Census information, bring into focus one of the fundamental tasks confronting American education; how to teach illiterate adults how to read and write well enough to live in the complex twentieth century.

To many illiterates, learning to read and write is an important step to promotions or better jobs. For some, literacy is the answer to getting any kind of a job. For others, it means enjoyment of newspapers, books, and magazines and the very special and not unimportant satisfactions arising from being able to write their own names. Also important is the selfrespect and dignity it brings to people who once felt inferior and even humiliated because of their handicap.

Virtually all job-training programs, such as those set in motion by the federal Manpower Retraining Act, require that trainees be able to read and write. No longer can an apprentice learn to use the tools of a trade through oral instruction or watching another man work. Textbooks, parts catalogs, and assembly manuals are standard today for both training and day-to-day job activity.

Today, the low-income, educationally deprived workers have the highest unemployment rates, receive the bulk of public welfare aid, and comprise a substantial percentage of those rejected for military service.

Who are these persons? Where do they live? What is being done about their plight?

Functional illiterates are concentrated in four main groups:

Reported from Overview, III (*October 1962*), *33–35.*

(1) persons over 40 years of age; (2) persons living on farms, especially Negroes; (3) persons with rural backgrounds who have moved to urban centers; and (4) migrant farm workers and other disadvantaged groups. Every year, their illiteracy is exacting a stiff price in wasted talent, lost wages, stifled ambition, and even weakened national security.

A NATIONAL PROBLEM

Although the South has the highest percentage of functional illiterates on a state-by-state basis, the problem is national, not regional, with the largest concentration of illiterates in urban centers across the nation. For example, there are nearly 800,000 illiterates (many are Negro and Puerto Rican) living in the New York City area. Several other states having large numbers of functional illiterates are California, 505,000; Illinois, 365,000; and Pennsylvania, 453,000. Massachusetts, Indiana, Missouri, and Oklahoma each have more than 100,000.

Most literacy education is being carried out by public-school adult-education programs and by private groups and foundations. While there is little federal aid in this area as yet (beyond some pilot programs under the National Defense Education Act), a bill introduced in the last session of Congress would have provided $50 million over the next five years to combat illiteracy in America. The bill was designed to attack illiteracy through grants to:

Colleges and universities for teacher-training programs and for developing methods and materials for instructing illiterate adults.

States for financing pilot projects to show school districts how to use these materials and how to stimulate interest in literacy class attendance.

States for aiding school districts in the financing of literacy classes.

State boards of education to aid them in developing and improving literacy education programs.

The state grants were to be distributed in proportion to the number of adults within a state who lack a sixth-grade education, as compared to the total for the entire country.

Meanwhile, the literacy education programs now in operation are nowhere near sufficient—either in quantity or quality—to meet current demands.

According to a report from the U.S. Office of Education, "Of the 15,200 school systems studied, only 4,840 have reported any type of adult education program, and of these, only 160, or 3.3 percent, offer instruction in basic literacy education."

Several key areas where literacy education *has* gained a foothold are Memphis, Tenn.; Dallas, Tex.; New Orleans, La.; Philadelphia, Pa.; and northern Alabama.

In an 11-county area in northern Alabama there are approximately 105,000 functional illiterates, including 19,000 persons who have never been to school. Literacy education is being provided this area through use of the only state-operated educational television network in the country. This ambitious use of television for literacy education is being carried on with the aid of a $66,000 NDEA grant.

The Laubach (picture-word association) method of teaching reading and writing is used in a program of 98 lessons. The TV lessons are reinforced with group instruction by specially trained nonprofessional volunteer teachers.

Although only 600 persons signed up for the original course (which was launched in 1960–61 with considerable publicity), Miss Nell Peerson, director of the program, claims that thousands more watched the lectures on their own.

"We still are encountering a lot of difficulty getting illiterates to participate," Miss Peerson reports. "They don't want to lose face with their friends and employers, and many are afraid the lessons will be too difficult for them."

Although the Alabama program has not as yet effected a substantial reduction in the number of functonal illiterates, it does represent a giant step forward. The second-year enrolment more than doubled (to 1300), with many new students declaring their interest was stimulated by watching some of the previous year's lectures.

Educational television is also being used for literacy education in Memphis (headquarters of the Foundation for World Literacy), in New Orleans, and in Philadelphia. In Dallas, the National Council of Jewish Women has developed a literacy training program for the 30,000 adults in the area who are unable to read or write. Chapter members have devoted thousands of hours to contacting students, providing teachers, and securing cooperation from schools and other public agencies.

The value of these programs can be best understood by the following letter received by a director of one of the literacy education programs from a student: "I always said that if I only had a chance I would really try my best to learn. Well, I've got that chance now, and I don't intend to let anything stand in my way if I can help it."

This student's enthusiasm is shared by many other American adults whose lives are being revitalized and redirected because they are, at last, learning to read and write. ●

THE most important function of education at any level is to develop the personality of the individual and the significance of his life to himself and to others. This is the basic architecture of a life; the rest is ornamentation and decoration of the structure. As such, it is desirable but only in a supplementary sense.—*Grayson Kirk.*

What the Court Actually Said

The Supreme Court Decision on Government-Sponsored Prayer

AUGUST W. STEINHILBER

In School Life

ON June 25, 1962, the U.S. Supreme Court decided the case of *Engle* v. *Vitale*. At issue was the constitutionality of a school district's requiring the following state-adopted prayer to be said aloud by each class in the presence of a teacher at the beginning of each school day: "Almighty God, we acknowledge our dependence upon Thee, and we beg Thy blessings upon us, our parents, our teachers, and our country."

The New York State Board of Regents had adopted the prayer and recommended its use in the public schools, and the defendant school district had subsequently directed its daily recital. Provisions had been made, however, to excuse those students who did not wish to participate.

The parents of 10 children brought action in a state court, challenging the use of the prayer in the public school on the grounds that these actions of official government agencies violated that part of the First Amendment of the Constitution of the United States which commands that "Congress shall make no law respecting an establishment of religion," a command which was made applicable to state and local governmental units by the Fourteenth Amendment. The state court disagreed with the parents' contention.

The U. S. Supreme Court reversed the lower court's decision, ruling against the use of a prescribed prayer in the schools although it recognized that the actions of the New York officials "would not amount to a total establishment of one particular religious sect to the exclusion of all others," it held that—

"Under . . . (the First) Amendment's prohibition against governmental establishment of religion, as reinforced by the provisions of the Fourteenth Amendment, government in this country, be it state or federal, is without power to prescribe by law any particular form of prayer which is to be used as an

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official prayer in carrying on any program of governmentally sponsored religious activity."

The Supreme Court decision traced the history of the English *Book of Common Prayer,* which was created under government direction and approved under acts of Parliament in 1548 and 1549. The controversies over this book threatened to disrupt the peace in England and as a result many people left that country to seek religious freedom in America. In the words of Justice Black, who wrote the Court's majority opinion—

"By the time of the adoption of the Constitution, our history shows that there was a widespread awareness among many Americans of the dangers of a union of Church and State. These people knew, some of them from bitter personal experience, that one of the greatest dangers to the freedom of the individual to worship in his own way lay in the government's placing its official stamp of approval on one particular kind of prayer or one particular form of religious services."

FORESAW QUESTIONS

Apparently the Court foresaw that their decision might be questioned. They said—

"It has been argued that to apply the Constitution in such a way as to prohibit state laws respecting an establishment of religious services in public schools is to indicate a hostility toward religion or toward prayer. Nothing, of course, could be more wrong. . . . These men (men of "faith in the power of prayer who led the fight for adoption of our Constitution and for our Bill of Rights") knew that the First Amendment, which tried to put an end to governmental control of religion and of prayer, was not written to destroy either. They knew rather that it was written to quiet well-justified fears which nearly all of them felt arising out of an awareness that governments of the past had shackled men's tongues to make them speak only the religious thoughts that government wanted them to speak and to pray only to the God that government wanted them to pray to. It is neither sacrilegious nor antireligious to say that each separate government in this country should stay out of the business of writing or sanctioning official prayers and leave that purely religious function to the people themselves and to those the people choose to look to for religious guidance.

". . . To those who may subscribe to the view that because the Regents' official prayer is so brief and general there can be no danger to religious freedom in its governmental establishment, however, it may be appropriate to say in the words of James Madison, the author of the First Amendment:

" 'It is proper to take alarm at the first experiment on our liberties. . . . Who does not see that the same authority which can establish Christianity, in exclusion of all other Religions, may establish with the same ease any particular sect of

Christians, in exclusion of all other Sects? That the same authority which can force a citizen to contribute only three pence of his property for the support of any one establishment, may force him to conform to any other establishment in all cases whatsoever?' "

Finally, the Court pointed out limits to its decision:

"There is, of course, nothing in the decision reached here that is inconsistent with the fact that school children and others are officially encouraged to express love for our country by reciting historical documents such as the Declaration of Independence which contains references to the Deity or by singing officially espoused anthems which include the composer's professions of faith in a Supreme Being, or with the fact that there are many manifestations in our public life of belief in God. Such patriotic or ceremonial occasions bear no true resemblance to the unquestioned religious exercise that the State of New York has sponsored in this instance."

Justice William O. Douglas, in a separate opinion, concurred in the Court's decision; Justice Potter Stewart dissented, on the grounds that the action of the New York State board did not constitute establishment of an "official religion." Justices Felix Frankfurter and Byron White did not participate in the decision. ●

● MORE light on the scope of the U.S. Supreme Court's decision in the New York case last June is expected to be seen sometime this winter. The Court in October agreed to pass on the constitutionality of Bible reading and the recitation of the Lord's Prayer in public-school classrooms by reviewing two lower court decisions in Maryland and Pennsylvania. In Maryland, the case was brought by a parent who described herself and her son as atheists and who opposed a Baltimore school-board regulation calling for Bible reading and daily recitation of the Lord's Prayer. The Maryland Court of Appeals upheld the regulation, maintaining that the exercises were in the same category as the opening prayer in the state legislature or in Congress. The Pennsylvania case was initiated by a Unitarian couple who objected to a state law requiring the reading of 10 verses from the Bible without comment at the opening of each school day. A special federal court held that the Bible reading was unconstitutional, since it constituted "an establishment of religion whether or not children could be excused."

Measurement and the Teacher

ROBERT L. EBEL

In Educational Leadership

THE 10 principles of measurement of educational achievement presented here are based on the experience and research by many people working to improve classroom testing. The principles discussed were selected on the basis of their relevance to questions and problems arising most often when tests of educational achievement are being considered, prepared, and used.

The measurement of educational achievement is essential to effective education.

Learning is a natural, inevitable result of human living. Some learning would occur even if no special provision were made for it in schools, or no special effort were taken to facilitate it. Yet efficient learning of complex achievements—reading, understanding of science, literary appreciation—requires special motivation, guidance, and assistance. Efforts must be directed toward attainment of specific goals. Those involved must know to what degree the goals have been achieved.

It is occasionally suggested that schools could get along without tests, or indeed that they might even do a better job if testing were prohibited. It is seldom suggested that effective education results if teachers and students have no particular goals in view or do not care what or how much is being learned. If tests were outlawed, some other means of assessing achievement would have to be substituted.

An educational test is no more or less than a device for facilitating, extending, and refining a teacher's observations of student achievement.

Despite the Biblical injunction, most of us often pass judgment on fellow men, whether voting for a candidate, selecting a physician, or granting or seeking a raise in pay. Those charged with making such judgments often feel they must do so while having inadequate evidence. Similar problems are faced by teachers attempting to assess students' achievements. Tests have

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developed from efforts to solve these problems. Oral examinations and objective examinations are means for making it easier for the teacher to observe a more extensive sample of student behavior under more controlled conditions.

The price that must be paid for a test's advantage of efficiency and control in the observation of student achievements is some loss in the naturalness of the behavior involved. But, what is gained in efficiency and precision of measurement usually far outweighs what may be lost due to artificiality of the situation in which the student's behavior is observed.

CAN BE MEASURED

Every important outcome of education can be measured.

For an outcome of education to be important, it must make a difference. The behavior of a person who has more of a particular outcome must be observably different from that of a person who has less. Perhaps one can imagine an educational result so deeply personal it never affects in any way what is said, done, or how time is spent. It is difficult to argue that such a well concealed achievement is important.

If the achievement does make a difference in what a person can do or does do, it can be measured. But to say that any important educational outcome is measurable is not to say that satisfactory methods of measurement now exist. It does reject the claim that some important educational outcomes are too complex or too intangible to be measured. Importance and measurability are logically inseparable.

The most important educational achievement is command of useful knowledge.

Judged on the basis of what teachers and students spend most of their time doing, it is obvious that acquisition of knowledge is a highly important outcome. To ask how to attain other objectives—self-realization, human relationship, economic efficiency, civic responsibility—it is obvious again that command of useful knowledge is the principal means.

A person's effectiveness in thinking about a problem depends largely on how effectively he can command the knowledge relevant to the problem. Command of knowledge does not guarantee success, or happiness, or righteousness, but it is difficult to think of anything else a school can attempt to develop which is half as likely to lead to these objectives.

WRITTEN TESTS

Written tests are well suited to measure the student's command of useful knowledge.

All knowledge can be expressed in propositions (statements that can be judged to be true or false). Scholars, scientists, research workers—all those concerned with adding to knowledge, spend most of their time formulating and verifying propositions. Implicit in every true-false or multiple-choice test item is a proposition, or several propositions. Elements of novelty are essential to any question testing a student's command of knowledge. He should not be allowed to respond successfully simply on the basis of rote learning or verbal association.

The classroom teacher should prepare most of the tests used to measure educational achievement in the classroom.

Many published tests are available for classroom use in measuring aptitude or achievement in broad areas of knowledge. But there are few which are specifically appropriate for measuring achievement of objectives of a particular unit of work or of a particular period of instruction.

Even if good ready-made tests were available generally, there is still a case in favor of teacher-made tests. The process of test development helps the teacher to define his objectives. It can result in tests more highly relevant than any external tests are likely to be. It can make the process of measuring achievement an integral part of the entire instructional process, as it should be.

TEST CONSTRUCTION

To measure achievement effectively the classroom teacher must be a master of the knowledge or skill to be tested, and a master of the practical arts of teaching.

There are no methods for enabling a poor teacher to make good tests. The following are vital to success in test construction: command of the knowledge being taught, understanding of common misconceptions regarding this content, ability to invent novel questions and problems, and ability to express these clearly and concisely.

A course in educational measurement or books and articles on classroom testing can teach some tricks of the trade of test construction. They may also serve to shake a teacher's faith—constructively and wholesomely—in some popular misconceptions about the processes of testing educational achievement. Among these misconceptions are the beliefs that only essay tests are useful for measuring the development of a student's higher mental processes; that a test score should indicate what proportion a student does know of what he ought to know; that mistakes in scoring are the main source of error in test scores.

QUALITY

The quality of a classroom test depends on the relevance of the tasks included in it, on the representativeness of its sampling of all aspects of instruction, and on the reliability of the scores it yields.

If a test question presents a problem like those the student may expect to encounter in later life outside the classroom, and if the course in which achievement is being tested did try to teach him how to deal with such problems, then the question is relevant. If the test questions involve, in proportion to their importance, all aspects of achievement the course undertakes to develop, it samples representatively. If the scores students receive agree closely with those they would receive on an independent, equivalent test, then the test yields reliable scores.

Either essay or objective test forms will present relevant tasks to the examinees. Ordinarily, the smaller the probability that the student has encountered the question before, or been taught a pat answer to it, the greater its relevance. Because of the greater number of questions involved, it is sometimes easier to include a representative sample of tasks in an objective than in an essay test. For the same reason, and also because of greater uniformity in scoring, objective tests are likely to yield somewhat more reliable scores than are essay tests.

RELIABILITY

The more variable the scores from a test designed to have a certain maximum possible score, the higher the expected reliability of those scores.

Reliability is sometimes defined as the proportion of the total variability among the test scores which is not attributable to errors of measurement. The size of the errors of measurement depends on the nature of the test—the kind and the numbers of items in it. Hence, for a particular test, any increase in the total variability of the scores is likely to increase the proportion which is not due to errors of measurement, and hence to increase the reliability of the test.

It is possible to obtain scores whose reliability is above .90 using 100 multiple-choice items, but it is difficult and seldom achieved in teacher-constructed tests. It is possible to handle 100-point essay tests and 100-item true-false tests so that their reliability will equal that of a 100-item multiple-choice test. Again, this is difficult and seldom attained by classroom teachers.

The reliability of a test can be increased by increasing the number of questions (or independent points to be scored) and by sharpening the power of individual questions to discriminate between students of high and low achievement.

In sharpening the discriminating power of questions it is important to keep in mind that an item that no one answers correctly, or that everyone answers correctly, cannot discriminate at all. Such an item adds nothing to the reliability of a test. But items of middle difficulty not only can have but usually do have greater discriminating power than very easy or very difficult items.

The brief discussions of the principles presented here is not intended to say all that needs to be said on educational measurement in the classroom. It is our sincere belief, however, that a teacher whose classroom testing reflects an understanding of these principles will do a better than average job of measuring student achievement. ●

There Are Some Headaches

Performance of Language Laboratory Equipment

JOSEPH SILVA

In Educational Screen and Audiovisual Guide

MUCH has been written about how to set up an ideal language laboratory but little has been said about the performance of the equipment after installation.

To gather information about operation of equipment, an investigation by questionnaire was carried out in certain schools in Illinois, excluding Chicago.

The investigation was exploratory rather than exhaustive; there is still much to be investigated. Questionnaires were sent to laboratory directors in 31 Illinois high schools. Twenty-three were completed and returned, but two answers were eliminated because the laboratories were so new.

Ten different makes of equipment were represented in the reports. Instructional facilities ranged in size from a 10-booth to a 36-booth laboratory, with 10 schools reporting 30-booth equipment. Two of the laboratories became operational in 1959; nine in 1960; ten in 1961.

An attempt was made to ascertain the extent of use to which the equipment was being subjected. A schedule of daily use puts more

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Joseph Silva is Language Laboratory Director, Thornton Township High Schools, Harvey, Illinois. Reported from Educational Screen and Audiovisual Guide, *XLI (October 1962), 600.*

Extent of Difficulty Experienced with Equipment

Equipment	Most trouble	Moderate trouble	Least trouble	No answer
Earphones	9	7	1	4
Amplifiers	2	1	9	9
Tape Recorders	4	4	9	4
Phonograph	0	2	11	8
Wiring	4	3	6	8
Control Panel	1	4	8	8
TOTAL	20	21	44	40

stress on equipment than does a library schedule, and, therefore, the directors were asked which schedule applied. In this category of scheduling, 11 directors replied that their laboratories were not operating at full capacity. One reason given was that not enough students used the laboratory after school. In the eyes of some, this is not using the equipment to capacity. In any case, 10 directors thought their laboratories were being used to capacity.

To the question of whether the equipment could withstand rugged daily treatment, 16 directors answered "Yes"; 5 responded with "No." The table (page 42) shows what the laboratory directors found to be the most troublesome parts. The nature of the equipment makes each part equally important; when one part fails, no matter how small, some booth or booths become inoperative.

To a question concerning satisfaction of service by the installing company, 9 directors reported that it was good, 6 said it was fair, 5 indicated that it was poor, and 1 did not answer. Eleven directors estimated that within a period of one to five years they would have to replace most of their electronic equipment, such as earphones, recorders, amplifiers, and wiring. The broad span of time might be accounted for by the fact that much of this equipment can be replaced piece by piece over a span of months or years. Most directors evidently do not know what to expect in the way of future replacements.

A question about improving the equipment was included in the questionnaire with the objective of getting reactions from laboratory directors as to how they viewed their major problems. The fact that 19 directors said that their equipment could be improved indicates that it is not operating to their best desires. The earphones are an example of this. For each set that went bad, a booth became inoperative if a replacement was not readily available. Where a laboratory is operating on a narrow margin of extra booths and where there are no reserve earphones, the situation can become annoying. As indicated in the chart, there were many complaints made about earphones.

In conclusion, it seems that most schools with a language laboratory had an electronic problem of one kind or another. Operating a language laboratory is evidently not as easy as it appears to be. There are still many problems—both curricular and electrical.

This exploratory investigation did not produce an indication of who is manufacturing the best laboratory equipment today. One company's equipment may be recommended by one director and condemmed by another. The investigation did indicate that there is much work and worry for whomever is designated or takes on himself the responsibility of language-laboratory director. ●

A Four-Point Guide

How to Hire a Language Teacher

THOMAS A. WILLIAMS, JR.

In North Carolina Education

WHEN a school needs a language teacher and the superintendent wishes to get the best person he can for the post, how can he go about selecting the person? What rules guide him in his choice?

If the wrong choice is made, an improperly equipped teacher is put in charge of an important language program. Examples are easy to find.

Two instances come readily to mind. One concerns a small school where the second-year French students puzzled me by the strange, very un-French accent they all seemed to share. The explanation was that their teacher, a native of Venice, spoke French with a heavy Italian accent. The second concerns students studying Spanish under the tutelage of a German matro. The *como está's* are loaded with gutteral overtones.

How can the administrator charged with recruiting eliminate poor choices? The mathematics teacher who can't add and the English teacher who can't spell are easily identified and hence easily eliminated but not many can evaluate the skills of a linguist.

To those charged with the responsibility, I offer this four-point guide.

Evaluating the transcript.—In no other field is there likely to be such a gap between qualifications on paper and qualifications in fact. It is only too possible to get a degree, even a Master's, in a modern language and still not speak it with any degree of fluency. This is possible because many schools concentrate on *literature* in the language and leave the attaining of *oral-aural* skills to the enterprise of the student. Such skills are usually inadequate.

The school and the department in which the record was made is as important as the record. The administrator must find out what type of language training a particular college offers. Only then can he decide whether one of its graduates will fit his needs. No number of *A's* and

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B's in literature courses can make up for a lack of practical experience with the language.

Recommendations.—The administrator should have a wide range of recommendations. Beware of the candidate presenting letters from professors in only one area of study. Require, especially, that he have his language professors send their endorsement and ask that they comment specifically on the candidate's ability in handling the spoken language.

If this kind of recommendation seems lukewarm, or if there seem to be other reservations, proceed with caution. The safest thing would be to have the candidate meet informally with a linguist of established merit for an on-the-spot evaluation.

Candidates with a language minor.—It is not wise to hire a person to teach in a language field on the basis of a minor in the subject. Course requirements for a minor are slim, as a rule amounting to only two courses beyond what is required for graduation of *all* students. A candidate with only the training a minor represents would certainly be naive and unskilled in the tools of his trade.

Often a teacher with a language minor will have a course thrust on him for reasons of expedience or economy. Such a teacher is not chosen because he knows much about his subject, but because he knows a little more about it than anyone available. Such practices must be avoided; language teaching is not a sideline. The mastery of a language requires long and careful study. A poorly trained teacher can do permanent damage to any pupil's language development.

Study abroad.—Foreign experience is perhaps the most desirable qualification a candidate can present. Certainly, it can outweigh minor deficiencies in other areas. A period of serious and informal study abroad in the country of his major language is a candidate's best claim to fluency and linguistic competence. Equally important is the vast store of first-hand experience which the teacher will have at his disposal to enrich his classes. ●

A THREE-YEAR study of 713 students of French in the New York City school system has disclosed that students who received instruction in language laboratories did far better in some respects than those who were taught solely by conventional methods. In vocabulary, grammar, and reading comprehension, both experimental and control groups did equally well. But the experimental group had "superior achievement" in language fluency, intonation, and listening comprehension, the report declared.

How Are Volunteers Selected and Trained?

The Peace Corps and the Colleges

ROGER FINCH

In College and University

ALTHOUGH the Peace Corps, as a United States government enterprise, is new; the ideas behind the Peace Corps are old. Everything the Peace Corps is doing, somebody else has done before and done it well. The very reason the Peace Corps appears to be succeeding is that it has drawn on the experience of others: our religious missions abroad, various volunteer agencies, the Experiment in International Living, and Operation Crossroads Africa.

But it is new for the federal government to sponsor a program of this type. It is a program of high ideals. Yet it is down to earth. Perhaps that is why it captured the imagination of people—it has high ideals that can be translated into action. It can produce something and do something.

It is based on the simple idealized idea of furnishing skilled men and women abroad where they are wanted and needed, asked for, and are willing to serve.

We have people serving now in 12 countries, doing a variety of things. We have a large group working in agricultural work in the villages. We have large groups working in what we call community development work, particularly important in Latin America, where the local villages have remained unchanged for centuries.

In community development work, one of the best things our people can do is to help a village to organize itself, to recognize what its needs are, and to seek its own solutions. While we, in this most organized country in the world, perhaps take for granted the various community organizations, this is a new concept in many countries of the world.

We can take many people who might not be skilled in agricultural extension or in teaching of mathematics but are intelligent people, have some hobbies, have been active in communities. They can be trained to do community development work. What they have always known in their own communities is brand new to these countries abroad.

An important aspect of Peace Corps service abroad is that each volunteer works under the direction of a host country national. He is part of that community, working within the host country's system.

Roger Finch is Director of University Relations, The Peace Corps. Reported from College and University, *XXXVII (Summer 1962), 389–403.*

If he is a secondary-school teacher, he occupies that position in the same way as a local teacher would.

In the final analysis, it is the volunteers serving in these positions abroad who will determine the success or failure of the Peace Corps.

Indications of how well we are doing should be examined with the information in mind that many countries are not receptive to the Peace Corps idea. They are overly sensitive about anything that may have any tinge of government control or sponsorship. The idea of a volunteer serving in this way is new to them and they don't understand it. How can it be that Americans, with all their material wealth, television, and all the rest, could possibly give up two years, come to their country, live as they do in their way, simply to help them? This is not understood in some countries. Therefore the Peace Corps has not been requested in some countries where we would like to have volunteers at work.

But these countries are beginning to look at the countries where the volunteers are working. They are finding that many things which they feared have not happened and probably will not happen, that this is not an infiltration, not an imperialist offensive, that it is not what all the threatening terms describe it to be. A proper understanding is likely to follow.

What sort of people do we want for volunteers, and how we select them, train them, and assign them are questions which provide a framework for effectively describing the Peace Corps volunteers.

SELECTION AND TRAINING

We have questionnaires distributed all over the country which can be filled out by anyone meeting the minimum qualifications: a minimum of 18 years of age, U.S. citizenship, and at least a high-school diploma. Contrary to a nagging rumor, we do want married couples—providing they both volunteer and both have skills that can be used in the same project. The other qualification is no dependents under the age of 18.

The median age of present volunteers is about 26. The range is from 18 to 65. We want mature people, socially well adjusted, who are adaptable and have the right motivations. These are tough things to measure. We try to measure them by evaluating the questionnaire, the five or six references, and the placement test.

Candidates selected for training report to one of our colleges or universities and undergo an intensive eight- or ten-week training program. The content covers: international relations; area studies; country studies; intensive language training; American culture and history; Communist doctrines, tactics, and techniques which could be related to the country in which they will be living; physical education; and first aid.

This training program is a part of the selection process, which continues throughout the training period. A person doesn't know whether or not he is going to serve abroad until he has completed the training program. We have a final selection board that evaluates each person.

This is a harsh process for many. Our experience to date is that for every four people who apply only one finally goes overseas, and even after this final selection process we find that there is going to be a bit more attrition.

To date, only four people have had to be returned to the United States and two of these were hardship conditions. One return resulted from the dropped post card, which was reported extensively in the news, and the other was a mistake on our part. We are still watching the news reports.

We know this will happen in the Peace Corps. During our training process our volunteers know in advance what they are going to be faced with, and still we have them applying, willing to serve, and serving enthusiastically abroad.

The Peace Corps is also an educational process. Built into the program is an opportunity for continuing education and professional development of the volunteers. They have behind them the resources of the institution that trained them and they have in the field with them a person from that institution who is assisting them in continuing their education.

In the field of teaching this is quite natural and obvious, because our teachers are getting an unusual experience in comparative education. We are trying increasingly to take advantage of this not only in the informal sense of a personal, continuing education, but also to include formal credit.

There is one other major point—Communist activity. We were aware from the beginning that we would be the subject of intensive Communist activity and attack in a variety of ways. Our volunteers are well acquainted in advance with what to expect. We have been quite successful in handling it, the reason being that our volunteers don't argue with those who raise questions. We don't impose restrictions on them; we ask them to be discreet. They have handled this well, primarily by doing what it was announced they were coming to do—to give assistance in that village or this community. This is our best defense.

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● A college coach, it is reported, tells prospective recruits that his college grants athletic scholarships on the basis of need—"How much we need you."—*Saturday Review.*

● One psychiatrist apparently believes that one can become too well adjusted. He recently reported that he had found a group of college students so well adjusted that he could not consider them normal.

Is a Compromise Possible?

Individualized Reading—Myths and Facts

N. DEAN EVANS

In Elementary English

N. Dean Evans is Assistant Superintendent, Delaware County Schools, Media, Pennsylvania. Reported from Elementary English, *XXXIX (October 1962), 580–83.*

TODAY there are those who claim that an individualized reading program in the elementary school is the only feasible way to teach reading effectively. The purpose here is to examine recent research and experimentation and to draw some conclusions regarding the validity of this claim.

The theory of individualized reading suggests that primarily a reading program be organized so that all individuals read independently rather than in regular reading groups. Trade books chosen by the pupils are the basic materials. Self-selection is a key feature, with each child reading at his own pace and keeping records in his notebook of material read.

After pupils are oriented to the program, the following activities are carried out during the reading period:

Short individual conferences are held, during which the student's reading list is checked, books are discussed, and perhaps some oral reading is done, when any difficulty is noted and help given. Proper information is noted on the student's individual progress sheet.

Individual reading at his desk or selection of books occupies the child when not in conference.

Teaching sessions with small flexible groups are held from time to time to teach skills. Groups are formed on the basis of test data, teacher observations, and information gained during conferences.

Short periods are set aside for sharing of reading experiences among class members. Motivation for future reading takes place here.

Some children may work on reading lists in notebooks or add words to vocabulary lists. And creative work growing out of common reading experiences may take place in small groups.

ADVANTAGES CLAIMED

The following advantages have been claimed for this program:

Children are purported to have made greater gains than control groups in vocabulary, comprehension, and total reading completed.

Children are much more interested when they can select their own books.

As children mature, their interests, needs, and abilities become much more diverse. Individualized reading meets these growing diversities more effectively.

The amount of class time spent reading is increased; consequently more words are learned through context.

The psychological effect of the program on the child is favorable. Pressures and tensions to meet the standards of a traditional reading group are eliminated. Group competition is minimized.

ARE THE CLAIMS VALID?

Does the research and critical classroom experience validate the enthusiastic claims made by supporters of individualized reading?

First, there is relatively little controlled research data available. This fact, however, has not deterred various enthusiasts from making extreme statements favoring complete individualization of reading instruction.

In a conclusion based on a summary of the limited research, Paul Witty, Ann Coomer, and Robert Sizemore write: "It may be readily concluded that available experimental data do not justify the recommendation of sole dependence on individualized reading. The experiments generally appear to be inconclusive and to lack sufficient provision for variable factors which may influence results."

The various features of the program should now be examined in light of the experimental evidence available.

The individual conference, a salient feature, definitely has limitations. A teacher with a class of 25 pupils and one reading hour per day will be fortunate to manage one five-minute conference per pupil per week. In this short period she is expected to check the student's progress in trade books, diagnose his reading deficiencies, teach some reading skills, and assist him in selecting new books on his instructional and interest level. During or immediately after the conference she must record what has transpired for later reference.

Most reading teachers will agree that diagnosis is one of our most difficult problems, both in terms of reading levels and skills. It is impossible for a teacher to know all the trade materials on her reading shelf. Yet in an individualized program she is expected to keep her pupils on the proper instructional level with each child reading a different book.

Assuming the child is reading a book on his instructional level, how much guidance does he receive in the extensive silent reading time? The teacher, when not in conference or otherwise engaged, moves around the room to assist with problems. But how does she know when a child is having difficulty? Only when the student becomes aware of a word-attack or vocabulary problems and asks for assistance.

It is, therefore, quite likely that the child will learn incorrect pronunciations and inaccurate meanings in the course of his reading. He will then practice these errors unless they happen to show up in the sample he reads to the teacher during the conference or in his answers to the brief comprehension questions.

When are skills taught? According to teachers who have experimented with individualized reading, skills are taught as needed during silent reading, or in the individual conference, or in small groups formulated according to diagnosed needs.

In actual practice, little or no skill work is done. As discussed previously, the teacher can hardly identify word-recognition problems during the silent reading period. It is extremely difficult, if not impossible, to form groups almost daily on the basis of individual conference notes. And the record-keeping required to maintain a systematic skills program for each child is overwhelming, even for the experienced reading teacher.

From the vague discussions about reading skills in the literature, it can be concluded safely that they are taught sporadically, if at all, in most individualized programs. Furthermore, the extremists decry grouping for any purpose whatsoever.

Individualization of instruction is a worthy goal and it can be achieved to a great extent by some experienced, dedicated, master teachers, operating under very favorable circumstances. However, in the modern elementary school there are many practical considerations, such as: the number of children in a class and their ranges of ability and interest; the variety of teacher skill and experience; and the time element for preparation, record-keeping, and actual teaching of seven or eight subject periods per day.

Despite the cries of those who insist that there can be no compromise, that every teacher must completely individualize, there are other voices. Morton Botel, for example, has advanced a most sensible proposal for the teaching of reading—a "total approach" plan to "integrate the finest materials, methods, organizational plans, and in-service education into a unified package."

A balanced program will include: sequence and continuity of skill and vocabulary development, which involves basal readers and other aids two or three days per week, with the children diagnosed and grouped by levels; wide reading; and some individual and small group activities.

All of the purported advantages of the individualized reading program can thus be combined with the proven benefits of good group instruction, where there is much learning in the sharing of ideas and in group interaction.

A good, well-balanced reading program is not *either* individualized *or* group oriented. It is both. As teachers grow in experience and competence in the skills of reading instruction, they should individualize their programs as much as is possible. ●

Implications of
a Health Program

Health and the Schools

HAROLD H. PUNKE

In School Activities

VARIOUS developments have recently directed our attention to the physical and mental health of the American people. These include the comparisons made between American school children and those of certain European countries, the rejection of young men examined for military service, the expenditures of Americans for quack medicines, and the incidence of nervous and mental illness. Comment by President Kennedy has emphasized the situation.

While there may be agreement that good health is desirable, there may be uncertainty about how to attain or preserve it. Problems may relate to defining what "good health" means.

To ask in a significant way what physical fitness means, one must ask: fitness for what and how is it measured? Supplementary questions relate to ways in which age, sex, vocation, or other factors influence fitness. Perhaps more attention should be devoted to the concept of "optimum" health, rather than the best possible health. Questions would still arise concerning optimum for what, and concerning ways in which age or vocation may relate to the optimum, but the theory involved would allow more leeway for an individual to pursue interests other than health, and for society to gain from productive service rendered by each for others.

If health is made a fetish, its social implication may seem comparable to a machine which is continuously kept in good working condition but is never put into productive operation. Attention to an optimum might result in less ignoring or discarding of goals—because statements regarding "ideal health" or "maximum good health" seem unrealistic, or obstructive of interests other than health. The level of health which actually functions in everyday lives of people might thus be higher under the optimum approach.

There are several factors contributing to the apparent low health status of American children, compared with children in certain technically advanced cultures, or the apparent lack of improvement when present young Americans are compared with those of earlier decades.

Harold H. Punke is Professor of Education, Auburn University, Alabama. Reported from School Activities, *XXXIV (September 1962),*
13–16.

More precise standards are available now and a more complete coverage is attained because data is more extensive than a few generations ago. Growth in knowledge about nutrition and vitamins, immunizations, etc., has made outstanding achievement possible in a sufficient number of cases to stimulate formulation of high standards of expectations.

Furthermore, one accompaniment of reduced death rate during infancy and early childhood is the preservation of numerous weak specimens, who succumb rather easily to illness during childhood.

THEORY AND PRACTICE

In many areas of American education, learning is still largely a memorizing process—rather than one of applying knowledge to specific situations or incorporating it into habits of daily behavior. Thus schools often give classroom information on diets and nutrition, personal cleanliness in connection with meals, sanitation regarding food preparation and serving, leisurely lunch-time procedure, etc. Then children run through a cafeteria line on a tight half-hour schedule, with little in the way of time, facilities, or supervision to insure that the cleanliness or other information will become incorporated into health habits.

In addition, many schools maintain snack bars which dispense mainly candy and soft drinks, causing children to disregard the cafeteria lunch. Some naive principals boast about the amount of money made from snack bars, money which is used to purchase school equipment. Such principals see no conflict in their dual functions as an administrative supervisor of instruction—including health education—and as a sponsor of the snack bar. Actually, a wide range of healthful items can now be made available through vending machines.

For over a half-century, school programs have included some health information. It has been limited in amount and usually formal in character—somewhat interesting as curiosity items, but seldom tied to daily life or so incorporated into habits as to greatly affect health practices.

This is still true to a large extent —although there has been expansion in available health and medical information; development of instructional materials which emphasize presentation of information for easy learning and application to daily life; and radio-television reminders on physical and mental health in America.

COMPETITIVE SPORTS

Regardless of ramifications by which present-day interscholastic athletics may have grown out of physical-education programs, interscholastic sports are not essentially programs to foster physical and mental health of participants or the general student body. They may constitute a type of vocational preparation, but the situation may resemble the percentage of high-school vocational-agriculture students who later become farmers. Physical education *should* be intended for the entire student body, varied according to age, sex, and other individual characteristics—much as other aspects of the school program are varied.

Team sports in schools may manifest what is sometimes called an exaggerated American emphasis on group activities—civic clubs, garden clubs, lodges, and fraternal organizations, etc. Some foreign observers have characterized the American tendency to form groups as a kind of gregariousness. Perhaps so. In any case, teams and small groups may offer fruitful means of exchanging views and attitudes en route to broader ethics and understanding, or they may do the opposite.

Competitive sports can develop considerable physical and moral discipline in participants—regarding small-group cooperation, loyalty and service to an institution, fitness for one kind of strenuous physical activity, etc. They can also develop attitudes of unfair play—how to "gouge" an opponent without detection; accentuate hero worship among adolescents; generate pressure on teachers to grade athletes in ways which show respect for eligibility; and cause extensive portions of community resources to be absorbed by athletic paraphernalia and facilities.

Probably in part because of the emphasis placed on sports, clubs and other extracurricular activities which might give attention to nonsports aspects of health receive little attention in most schools. Such clubs, now sponsored by schools on an extracurricular basis, might more feasibly serve as cores for post-school interest than many clubs which the schools now sponsor. These groups, on a live and continuing basis, might substantially influence a national health program.

A wealth of new knowledge on medicine and health has been developed since World War II. Some of it has affected the teaching of health in schools and colleges; less of it has been channeled through schools en route to affecting health practices. Private corporations and philanthropic foundations have sponsored extensive research on specific diseases and on development of drugs. Important contributions have come from psychology and neurology. Along with other influences, the President's recommendations may stimulate further research in these and other areas.

Exactly what health services the American people should have, and varied experimentation on how they might be provided, are areas where research is needed. In this respect, it is important for educational institutions to develop attitudes in young Americans which are favorable to research in mental and physical health. Also, educational institutions should acquaint youth with vocational possibilities in health fields, and with the opportunities available for dedicated service. ●

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

Election Effects.—How did the outcome of the 1962 Congressional elections affect the outlook for education legislation? There seem to be two differing opinions.

Some believe that very little, if anything, has been changed by the elections. The increased number of Democrats and supporters of the President elected to the Senate change nothing, in this view, because the Senate has repeatedly voted for federal aid. The problem lies in the House, where the Republican-Southern Democratic coalition apparently still maintains effective control. The Democrats did not lose as many seats as expected, but otherwise nothing much was changed at the polls.

Others, in contrast, hold that the mid-term elections were a considerable victory for President Kennedy, which will embolden him to press harder for his domestic legislation. Only once in this century, in 1934, did the party in power gain seats in the House in a mid-term election. A loss of about 20 seats to the opposition party is considered normal. In 1962, however, the President's party lost only two seats, and this, it is claimed, signifies great popular support for the President.

It is clear that the President gained more support in the House of Representatives than the arithmetic alone would indicate. The Congressmen whose seats were lost through reapportionment were chiefly critics of the Administration, while most of the additional seats gained by California, for example, were filled by Congressmen who are expected to be strong supporters of liberal legislation recommended by the President.

Early in 1961, President Kennedy won the fight to enlarge—and, hopefully, to control—the House Rules Committee, though by a mere five-vote margin. If he makes the same fight again next month, he will probably do a little better, and this slight increase in voting strength should suffice to enact some of the key items in his 1963 legislative program, or so it is being argued here by many.

The components of the President's legislative requests next month have now been chosen. He is expected to reiterate his request for aid to elementary and secondary education and to the colleges and universities. But these requests, no matter how resoundingly they may be phrased, are likely to be only ritualistic. Legislation of this type is not given much of a chance next year, unless perhaps it is coupled to a bill extending aid to the so-called federally impacted areas, which is scheduled to expire next June.

Aid by Any Name.—The Administration has previously tried to tie general federal aid to this program in two different ways, both unsuccessful thus far. In 1961, after its original bill had been stopped in the House of Representatives, the Administration attempted to amend Public Laws 815 and 874—the impacted areas statutes—to include general federal aid. This was defeated. Then it tried to extend these laws for only one year, so it could try again the following year, but this effort was also defeated.

A few months ago, the Administration suggested that the definition of an "impacted area" be changed to make the big cities eligible for this form of federal aid. At present, a school district must have more than 6 percent of its students with parents either living or working at a federal installation, or both, if it is to qualify for aid under Public Laws 815 and 874. The Administration proposed to drop this eligibility level to 3 percent, which would have brought most large cities into the program, at an additional cost of $50 million for the first year.

This ingenious proposal was also defeated in the House Education and Labor Committee, but much the same approach may well be proposed again next year by the President. Aside from the choice of a successful strategy, aid to education currently faces several other obstacles. One is the Administration's desire to hold down federal expenditures. The President's directive to the HEW Department, as it planned its 1963 legislative program, was to limit its proposals to those that would total no more than $200 million in new expenditures next year. Obviously, aid-to-education is too expensive for so limited a shopping list.

Church and State.—The religious issue—the question of granting public funds to aid private schools—is a paramount obstacle. It killed aid to elementary and secondary education in 1961. It killed aid to higher education in 1962. But there are some signs that this particular obstacle could perhaps be overcome, since this issue was placed before the voters in a number of Congressional races.

A new national organization of laymen called Citizens for Educational Freedom (CEF) queried many candidates for state and national office this year and publicized their views on public aid to private schools. On the basis of these replies, the organization then urged its 25,000 members and the general public to support those who announced their willingness to aid private schools with tax funds and to defeat those who opposed this position.

Citizens for Educational Freedom specifically called for defeat of 25 candidates for election or re-election to the House of Representatives. All were elected, despite CEF opposition. The organization also supported a number of other Congressional candidates who were elected. None were in any serious danger of defeat, however, with the possible exception of Rep. Hugh Carey (D-N.Y.), who retained his Brooklyn Congressional seat in a closely contested election. He is a member of the national board of CEF, which perhaps gained him the few extra votes he needed for reelection.

Inability to defeat its Congressional opponents, however, could tend to dissipate much of the fear that the CEF has engendered among Congressmen otherwise favorable to federal aid to education. If the Administration were convinced that the elections actually demonstrated lack of public support for the CEF position, it could develop more support for education legislation next year.

On the other hand, Administration strategists are continually guided by the fact that two-thirds of the Roman Catholics who voted for President Eisenhower in 1956 voted for Candidate Kennedy in 1960. In 1964, they hope to win these votes again, and hence they may fear to grasp the nettle involved in actually enacting legislation that by-passes the private schools.

Vocational Education.— The Administration is also expected to ask for legislation modernizing and expanding federal aid to vocational education, a program that has enjoyed strong Congressional support since it began in 1917. The church-state question has never yet arisen to plague this program.

Twenty-five citizens and educators, under the chairmanship of Benjamin C. Willis, Chicago's superintendent of schools, recommended that the present division of federally-aided vocational education along subject-matter or occupational lines be replaced with categories embracing the types of people served by the instructional program. Instead of agriculture, home economics, trades and industry, distributive occupations, etc., the Willis committee proposed that Congress authorize vocational-education programs for high-school students; high-school youth with special needs; post-high-school students preparing for technical occupations; and people who need training or retraining to get or hold a job.

For the high-school vocational-education program, the Willis committee's recommendation is that Congress vote $200 million in the 1963–64 school year. This compares with present appropriations of less than $56 million for this group. Much of the increased federal support would go to reimburse schools for preparing high-school students for office occupations. They are already doing this job, of course, but the federal funds would free some state and local money to be used for some equally worthy purpose.

For high-school students "with academic, socio-economic, or other handicaps that prevent them from succeeding in the regular vocational-education program," the Willis committee proposed a program of demonstration projects to cost $10 million in its first year, which is about the annual cost of the present federal programs of grants for control of juvenile delinquency.

The Willis committee's recommendation for 13th and 14th year programs training technicians is a starting expenditure of $50 million. For adult training and retraining, the recommendation is $100 million, which is twice the amount that will be devoted to this purpose under the Manpower Development and Training Act. Then, for teacher training, research, and development of instructional materials, the Willis committee proposes a program starting at $40 million per year.

The American Vocational Association, which is scheduled to hear these recommendations from Dr. Willis himself at its annual meeting early this month, is expected to support the resulting legislation next year. The recommendations also include a broadening of vocational agriculture and distributive education, no diminution of home economics, and certain other detailed changes calculated to evoke enthusiasm among vocational educators.

Education and Employment.—Expansion of vocational education easily recommends itself to the Administration, which is well aware of the economic implications of education. Dr. Walter Heller, chairman of the President's Council of Economic Advisors, emphasizes the importance of education and training in economic development. More than 10,000 adults are now in training under the Administration's Manpower Development and Training Act. Next month, the President will submit to Congress the first of an annual series of reports on the nation's manpower resources.

Thus the climate seems favorable for aid to education for the practical, utilitarian reasons implicit in vocational education. Somehow, this particular program of federal aid has been popular with Congressmen through the years. The American Vocational Association is probably the most successful organization of its kind in Washington. When President Eisenhower once proposed a cut in the vocational education appropriation, Congress voted an increase exactly equal to the reduction mentioned by the President, and his efforts to "turn this program back to the states" came to naught despite his repeated efforts.

Big City Problems.—A new report issued by the Office of Education highlights the educational problems peculiar to school systems in America's largest cities. The report, entitled "The Impact of Urbanization on Education," is the result of the conference held last spring bringing urban planners and educators together to discuss mutual problems and responsibilities, and is available for 10 cents from the U. S. Government Printing Office, Washington 25, D. C. •

The California Contest

The election of Max Rafferty as state superintendent of public instruction in California last month ended a contest unprecendented for the interest it attracted. No contest for an educational post has been given the extensive national as well as state coverage in the press, and on radio and TV.

Dr. Rafferty defeated Ralph Richardson, member of the Los Angeles City Board of Education. Dr. Richardson was supported by Governor Brown, the State Board of Education, and the state's professional educational associations. Dr. Rafferty had no professional educational association backing, but he was enthusiastically supported by organizations and political groups that described themselves as conservative.

Dr. Rafferty based his campaign mainly on ridding the schools of "progressive education," getting the right for local school districts to pick elementary-school textbooks, and reorganizing the State Department of Education. He repeatedly said, "I am opposed to the currently popular 'life adjustment' philosophy in education. I would like to stress the importance of subject matter."

Shortages Remain

Nearly 115,000 more elementary-school teachers and approximately the same number of additional classrooms are needed to relieve overcrowded classrooms in the nation's larger cities, according to a 1962 NEA survey on class size in urban elementary schools.

This number of new teachers would provide for an average elementary school class size of 25. If the class size were 30, the need would still be for 35,386 more teachers and classrooms, the survey shows.

The average class size in the 2,464 school systems enrolling more than 3,000 pupils each was more than 30. More than one-quarter million of the children in these cities were on half-day sessions because there aren't enough teachers or classrooms, according to the report. In these cities, more than 500 classes had 56 or more pupils and many thousands of classes enrolled 40 or more pupils.

IDA Helps Education

A credit of $5 million to Tunisia for secondary and technical school construction has been approved by the International Development Association, an affiliate of the World Bank. The credit is the first ever made by the IDA for education. It will be repayable over 50 years. Similar credits for the development of education in other countries can now be expected.

The credit is the result of a Unesco mission to Tunisia last year, at the request of the Tunisian government, to evaluate the present state of education, particularly technical, in the country. Tunisia has recently adopted a 10-year educational program, which is expected to cost the equivalent of $210 million.

New Physics Journal

THE American Association of Physics Teachers announces that it will start publication in the spring of 1963 of *The American Physics Teacher.* The publication will be the first journal devoted to the needs of high-school physics teachers and students.

The journal will be supported by a grant from the National Science Foundation and from the budget of the AAPT. J. W. Buchta, University of Minnesota, has been named editor of the new journal and executive secretary of AAPT.

State-Wide Standards

CONNECTICUT is moving toward the establishment of state-wide standards for its public schools and for their eventual accreditation by the state, according to *Education USA.*

The proposed standards, dealing with personnel, program, facilities, and management, were put before the annual Connecticut Conference on Education in October and are open for review and criticism until January when they will be submitted to the state board of education.

If the standards are approved by the board, there will be a two-year period of experimentation of both standards and accreditation with selected schools, after which the program will go into full operation in 1965.

Theobald Cites Gains

JOHN J. THEOBALD, now on terminal leave before his formal retirement in February as superintendent of New York City schools, said in a recent interview that one of the most important accomplishments of his four-year administration was the "re-establishment of educational standards."

He cited the following steps taken in recent years: the abandonment of automatic promotion for all pupils; a new emphasis on pupil performance; programs to meet the reading problems of pupils; the development of improved guidance programs at all levels; the undertaking of special projects aimed at early identification of pupils with learning problems; and the expansion of the "Higher Horizons" program.

He also mentioned such other achievements as: the system's "open enrolment program" which permits Negro and Puerto Rican children from overcrowded schools to attend under-utilized schools in other areas; the appointment of high-ranking educational officials on the basis of merit rather than political or religious considerations; and the introduction of many new programs and an emphasis on experimentation.

Dr. Theobald retired to become vice-president for education services of U.S. Industries. His successor as superintendent will be Calvin E.

Gross, now superintendent at Pittsburgh, Pa.

MPATI Elects Directors

THE controls of the "Flying Classroom"—the Midwest Program on Airborne Television Instruction, Inc. (MPATI)—changed hands in November. More than 200 representatives from member schools gathered at Purdue University on Nov. 11 and 12 to assume responsibility for operation and development of the program.

A board of directors, consisting of 19 men from six states, was elected. This first elected body replaced an interim board and the original Midwest Council that guided the project during its experimental phase.

Since July, member schools have contributed to partial financial support of the project. Principal source of income is a grant from the Ford Foundation of $7.5 million, which will decrease gradually each year until by 1966 the Airborne project will be sustained largely by members.

MPATI uses a DC6 aircraft to telecast instructional material to schools and colleges five hours a day, four days a week, during the school year.

Publishers Selected

THE Biological Sciences Curriculum Study announces that commercial publication of its new *BSCS High School Biology,* which has been undergoing experimentation and study for the last three years, has been scheduled for the fall of 1963.

Publishers for the books have now been selected. Components of the course will be published by the following concerns: Houghton-Mifflin; Rand McNally; Harcourt, Brace & World; John Wiley; Doubleday; and D. C. Heath.

During 1962–63, while plans are underway for making BSCS biology materials generally available, 950 specially prepared teachers are using the materials in their classrooms in 46 states.

DATES OF THE MONTH:

Dec. 3-7, American Vocational Association, Milwaukee, Wis.

DATES OF THE COMING MONTHS:

Feb. 9-13, National Association of Secondary-School Principals, Pittsburgh, Pa.

Feb. 13-16, American Association of Colleges for Teacher Education, Chicago, Ill.

Feb. 16-20, American Association of School Administrators, Altantic City, N.J.

Mar. 3-6, Association for Higher Education, Chicago, Ill.

Mar. 10-14, Association for Supervision and Curriculum Development, St. Louis, Mo.

Mar. 10-15, National Art Education Association, Kansas City, Mo.

Mar. 29-April 2, National Science Teachers Association, Philadelphia, Pa.

Mar. 30-April 3, Department of Elementary School Principals, Oklahoma City, Okla.

April 3-10, National Council of Teachers of Mathematics, Pittsburgh, Pa.

April 9-13, American Industrial Arts Association, Indianapolis, Ind.

April 16-19, National Catholic Educational Association, St. Louis, Mo.

New Educational Materials

Administering the School Personnel Program. William B. Castetter. New York: The Macmillan Company, 1962. Pp. xvi + 400. $6.90.

This book discusses the most basic problems faced by the school administrator in the selection and administration of the school staff, both instructional and noninstructional.

After a detailed analysis of the problem of determining personnel need, including quantity, quality, and compensation, the author examines the process of recruiting, selecting, and inducting the personnel. The final section of the book is devoted to an analysis of the factors in maintaining and improving personnel service.

Emphasis is given throughout the book to the relationship of the personnel function to the total administrative process. Recognition is also made of the fact that school personnel consists of three groups—administrative, instructional, and noninstructional; and personnel problems associated with each group are treated.

In Defense of American Education. Washington, D.C.: Public Affairs Press, 1962. Pp. 74. $3.25.

Stating that education is this nation's most important contribution to civilization, the author presents a series of essays to illustrate the immensity of the challenge that a policy of universal education poses for a nation. The very idea of limiting by any degree the policy of education for all is rejected as the author traces the development of universal education in the U.S. The author relates the development of education in this country to men and events in an attempt to demonstrate that education has risen to meet the challenges of the past.

There is a warning note in regard to meeting challenges today and of the future. It is noted that education evolved through bitter conflict and controversy. There is a reminder of the early struggles over tax support for public schools. And the author contends that we have never really "sold" education, in the sense of a persistent attempt to enlighten the public about its importance and contributions. He maintains that this must be accomplished to gain the material support needed to prevent high ideals and purposes from being negated.

Frederick Mayer is professor of humanities and philosophy, Redlands University, California.

The Profane Comedy. Kenneth E. Elbe. New York: The Macmillan Company, 1962. Pp. x + 234. $5.00.

With a subtitle, "American Higher Education in the Sixties," this book is a critical discussion of this phase of education in our country. In an informal personal writing style, the author comments on the extreme range of academic proficiency among the institutions (grouping them in areas of "Limbo," "Purgatory," and "Paradise," from the viewpoint of the teaching faculty), student life, money, the functions of social service, research, and contributions to intellectual life. One short acidulous chapter is devoted to intercollegiate athletics.

Final chapters are concerned with noting achievements of higher education, which serves also to highlight the immensity of the task attempted. There is a short discussion on the direction of higher education in the future. The author states the future will be determined by the drive toward excellence working against the drift toward mediocrity. His hopes and proposals for the future include a suggestion for establishing a first-rate federal university, which could demonstrate the national government's stake in higher education and ability to support it without control.

Teaching and Learning in Junior High School. Roland C. Faunce and Morrel J. Clute. San Francisco: Wadsworth Publishing Co., Inc., 1962. Pp. xii + 367.

Based on a premise that "the breakthrough toward better teaching and learning may come about in the junior-high school," the authors have prepared this book to deal with issues, problems, and practices of education today, focusing on the junior-high area. "It is here that we most nearly approach our goal of universal secondary education," they declare.

Following an opening chapter which traces briefly the development of the junior-high school, there is a discussion of the characteristics and needs of the early adolescent, and a chapter on the learning process. The book then examines functions and practices over a wide range, including: curriculum, activities, guidance, teacher preparation, school-parent relationships, the school plant (including recent trends in construction), and administration.

Roland C. Faunce and Morrel J. Clute, professors of education at Wayne State University, Detroit, have had practical experience in secondary education as teachers and administrators.

The Adult Education Movement in the United States. Malcolm S. Knowles. New York: Holt, Rinehart and Winston, Inc., 1962. Pp. xiii + 335. $5.00.

In presenting this history of adult education from colonial days to the present, the author who is an associate professor of education at Boston University, traces the role adult education has played in the development of this nation's culture, shows how forces in our society have influenced adult education, and comments on possible future trends.

The haphazard growth and development of adult education (as contrasted to the organization and direction of youth education) is described, and it is suggested that perhaps the absence of domination and control by an agency or a doctrine explains why adult education in America has extended into more phases of life than in any other nation.

The final chapter includes some predictions about the future of adult education, including predictions that this area of activity will continue to expand and develop while taking on some characteristics of youth education. The author bases his predictions on assumptions that the numbers of adults will increase and that the pace of social and technological change that induces adults to engage in selfimprovement is accelerating.

ELEMENTARY

Two Pesos for Catalina. Anna Kirn. Chicago: Rand McNally & Company, 1962. Pp. 56. $2.95.

Margaret Pumphrey's Pilgrim Stories. Revised by Elvajean Hall. Chicago: Rand McNally & Company, 1962. Pp. 176. $2.95.

Science, Grades K-6: Motion and Force in Transportation. Curriculum Bulletin 2F, New York City Board of Education. Pp. 101. Available from New York City Board of Education, 110 Livingston St., Brooklyn 1, N.Y. $.50.

Games Make Spelling Fun. (Second Edition.) Jean F. Dean. Pp. 24. Available from Better-Teaching Aids, Box 211, Newport Beach, Calif. $.50.

Ambush at Fort Dearborn. Mary Virginia Fox. New York: St. Martin's Press, 1962. Pp. 173. $3.50.

From Scales to Fancy Feathers. Iona Seibert Hiser. Chicago: Rand McNally & Company, 1962. Pp. 136. $3.50.

The Man in the Moon and Fun at Camp. Henry Wenkart. Pp. 24 each. Available from the author and publisher, 4 Shady Hill Square, Cambridge 38, Mass. $.85 each. Two phonic readers.

How and Why Wonder Book of Science Experiments. Martin L. Keen. **How and Why Wonder Book of Prehistoric Mammals.** Martin L. Keen. **How and**

Why Wonder Book of Florence Nightingale. Robert N. Webb. **How and Why Wonder Book of World War II.** Felix Sutton. New York: Grosset & Dunlap, Inc., 1962. Pp. 48 each. $1.00 each.

You and Space. Frances George. Washington, D. C.: National Aerospace Education Council, 1962. Pp. 30. $.50.

Elementary Teachers Guide to Free Curriculum Materials. (19th Edition.) Edited by Patricia H. Suttles. Randolph, Wis.: Educators Progress Service, 1962. Pp. xv + 338. $7.50.

The Art of Ancient Egypt. Shirley Glubok. New York: Atheneum Publishers, 1962. Pp. 48. $3.95.

SECONDARY

Ideas in Prose. Edited by Oscar H. Fidell. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. 282. $2.20. A selection of essays, with teaching aids, for the secondary schools.

Growing and Changing. W. W. Bauer, *et al*. Chicago: Scott, Foresman and Company, 1962. Pp. 312. $2.88. Book Seven in the Health and Safety series.

Mathematics, Grade 8. Curriculum Bulletin, 1961–62, Series No. 4, Board of Education, City of New York. 1962. Pp. 200. Available from the Board of Education Publications Sales Office, 110 Livingston St., Brooklyn 1, N.Y. $1.50.

Aviation and Space Medicine; Man Conquers the Vertical Frontier. Martin and Grace Caidin. New York: E. P. Dutton & Co., Inc., 1962. Pp. 215. $3.75.

The Story of Cosmic Rays. Germaine and Arthur Beiser. New York: E. P. Dutton & Co., Inc., 1962. Pp. 126. $2.95.

Short Stories I. Virginia Alwin. **Short Stories II,** Elizabeth Scheld. **Nonfiction I.** Jarvis Bush. **Non fiction II.** Alice Baum. **Drama I.** Marjorie Wescott Barrows. **Drama II.** Crosby E. Redman. New York: The Macmillan Company, 1962. Pp. 284, 235, 243, 244, 254, and 356, respectively. Titles in Literary Heritage, a new Macmillan paperback series.

Teen-Age Treasury of Imagination and Discovery. Edited by Seon Manley and Gogo Lewis. New York: Funk & Wagnalls Company, Inc., 1962. Pp. xiii + 332. $4.95.

Practical Political Action: A Guide for Young Citizens. Boston: Houghton Mifflin Company, 1962. Pp. x + 197. $2.00, cloth; $1.32, paper. A high-school text on politics and elections, developed by the Lincoln Filene Center for Citizenship and Public Affairs of Tufts University.

COLLEGE

Higher Education: Resources and Finance. Seymour E. Harris. New York: McGraw-Hill Book Company, Inc., 1962. Pp. xxxviii + 713. $9.95.

A Complete Guide to College Fraternity Rushing and Pledging. John Fitzgerald. New York: Ivan Obolensky, Inc., 1962. Pp. x + 150. $2.95, cloth; $1.95, paper.

Introduction to College Life; A Book of Readings. Edited by Norman T. Bell, Richard W. Burkhart, and Victor B. Lawhead. Boston: Houghton Mifflin Company, 1962. Pp. x + 142. $2.50.

Introduction to American Education. S. E. Frost. Garden City, N.Y., Doubleday & Company, Inc., 1962. Pp. 333. $1.75, paper. One of the new series of Doubleday College Course Guides.

Introduction to Philosophy; Readings in Epistemology, Metaphysics, Ethics, and Philosophy of Religion. Edited by Arthus Smullyan, *et al*. Belmont, Calif.: Wadsworth Publishing Company, Inc., 1962. Pp. ix + 418. $6.95.

Handbook of Chemistry and Physics. (44th Edition). Edited by Charles D. Hodgman *et al*. Cleveland, Ohio: The Chemical Rubber Publishing Co., 1962. Pp. xxvii + 3604. $12.00.

GUIDANCE

A Career in Music Education. Washington, D.C.: Music Educators National Conference, 1962 Pp. 22. $.50.

Educators Guide to Free Guidance Materials. Randolph, Wis.: Educators Progress Service, 1962. Pp. xv + 253. $6.50.

Jobs in Psychology. Chicago: Science

Research Associates, Inc., 1962. Pp. 43. $1.00. Discounts in quantity.

PROGRAMED LEARNING

Computer Language; An Auto-Instructional Introduction to Fortran. Harry L. Colman and Clarence Smallwood. New York: McGraw-Hill Book Company, Inc., 1962. Pp. 196. $3.95.

Vectors: A Programmed Text for Introductory Physics. New York: Appleton-Century Crofts, 1962. Pp. 175. $2.20. A Basic Systems Program.

The Teacher and the Machine. Edited by Philip Lambert. Madison, Wis.: Dembar Educational Research Services, Inc., 1962. Pp. 126. $2.50.

GENERAL

The Citizen Speaks; Speech Communication for Adults. Frank E. Z. Dance. Belmont, Calif.: Wadsworth Publishing Company, Inc., 1962. Pp. xiii + 224. $3.50.

Becoming the Complete Adult. Edited by Simon Doniger. New York: Association Press, 1962. Pp. 222. $4.50.

Educators Guide to Free Social Studies Materials. (Second Edition.) Edited by Patricia H. Suttles. Randolph, Wis.: Educators Progress Service, 1962. Pp. xii + 390. $6.75.

Statistical Summary of Education: 1957–58. Chapter 1 of the Biennial Survey of Education in the U.S., 1956–58 (OE-1003-58), U.S. Office of Education, 1962. Pp. viii + 50. Available from U.S. Government Printing Office, Washington 25, D.C. $.35.

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Volume XXVIII JANUARY 1963 Number 5

The NEA-AFL Power Struggle

Strikes or Sanctions?

STANLEY ELAM

In Phi Delta Kappan

Stanley Elam is Editor, Phi Delta Kappan. Reported from Phi Delta Kappan, *XLIV (October 1962), 1–9.*

AT convention headquarters in Denver and Detroit this summer, leaders of the National Education Association and the American Federation of Teachers strove to establish winning strategy for a showdown on the question that, perhaps more than any other, hits educators where they live:

By what means can we best raise ourselves from genteel poverty and public disparagement to economic parity and professional stature?

NEA Executive Secretary William G. Carr sounded the call to battle in his keynote address in Denver. He left no doubt that the most searching of the challenges facing the NEA would be the resurgent AFT. He said:

"The new crisis which confronts the association has two aspects.

"First, the growth of cities and suburbs and their educational needs and social problems, combined with the inadequacy of professional organizations in many of these centers to deal effectively with these needs and problems. Second, the effort to enlist all public-school teachers in a white-collar union, with emphasis at first on the big cities."

Carr went on to liken NEA affiliates in the cities to a "steaming kettle of alphabet soup," admitting that they are often out of contact with the state education association, that many do not communicate even with their membership, and that some are torn by ancient feuds. He then analyzed the current union drive, pointing to heavy expenditures by the AFL-CIO to unionize public-school teachers.

Why this move on the teaching profession? Carr's answer was that union membership has been declining since 1956, the average loss being about 140,000 members per year. He said, "Many union leaders believe that they must organize the white-collar workers . . . to serve the labor movement properly. Perhaps they regard teaching as the relatively undefended gateway to this wider objective."

Carr asked for the NEA delegates to examine critically the basic social consequences of the proposed unionization of the nation's public-school teachers.

The Delegate Assembly then heard Arthur Corey, executive secretary of the California Teachers Association, explain why he believes teachers should not strike and how the CTA's sanctions program works. The assembly also heard James Carey, vice-president of the AFL-CIO, say that teachers too often use "professionalism" as a substitute for economic dignity, that no other profession in America would tolerate the conditions under which our teachers work daily, and that the NEA cannot do an adequate job of pressing for the rights of teachers.

ENDORSE SANCTIONS

Then the Delegate Assembly took up the challenge and voted overwhelmingly in favor of professional negotiations, backed by sanctions, and reiterated the NEA stand against the strike as a means of attaining professional goals.

The resolution calling for "professional sanctions" to implement professional negotiations was not introduced by the Resolutions Committee; it came from the floor, by the Oregon delegation.

The concept of "professional sanctions" is not new. It can be traced back 33 years to the NEA Code of Ethics adopted by the 1929 convention. In fulfilling their obligations with respect to employment, the code says, teachers must "refuse to accept a position when the vacancy has been created through unprofessional activity or pending controversy over professional policy or the application of unjust personnel practices and procedures."

But sanctions have rarely been applied by the NEA strictly on behalf of teachers and never, so far as we can discover, to force salary adjustments.

The North College Hill, Ohio, story of 1947 is a case in point. The board by a three-to-two vote fired the superintendent. Repercussions were unprecedented and included prolonged student strikes, mass community protests, a board-meeting riot and arrests, and mass resignations of teachers.

The executive committees of the Ohio Education Association and the NEA, at the request of the NEA Defense Commission, issued a sanctions statement. The statement called for teachers to refuse to accept positions in the system as long as it remained under domination of the "present board of education majority."

All the members of the board resigned the evening of the day the statement was issued and new board members were appointed by the resident judge. Steps were taken to assure improved conditions, including re-employment of the superintendent and many of the teachers.

At last summer's convention in Denver, the eyes of the delegates were on a sanctions test case now taking place in California's Little Lake City School District. After a two-year-long examination of unacceptable personnel conditions in the district, the California Teachers Association imposed sanctions on the district on April 15, 1962. Without exploring the complexities here, it is interesting that the superintendent seems to have experienced little difficulty in recruiting a staff for the current year.

NEA leaders know, of course, that they must develop techniques of dealing with boards of education and their agents which will in most cases obviate the necessity of imposing sanctions. Successful "professional negotiations" imply the selection of an agent in much the same way that collective bargaining does.

A COLLISION COURSE

And this is where the NEA and AFT are steering a collision course. There is likely to be a battle in city after city, between groups who, for one reason or another, favor either sanctions and professional negotiations or strikes and collective bargaining.

Perhaps the real question, so far as the union is concerned, is: *Can teachers be organized?* Considering that the AFT has for 12 years grown no faster than the nation's teaching force, and has never enrolled more than 5 percent of the total, what is the source of the optimism exhibited at its Detroit convention?

The source of AFT optimism lies in the success story of the burgeoning United Federation of Teachers in New York City. Two years ago the UFT enrolled no more than 5,000 of the city's 40,000 teachers. But then, with a one-day strike, it wrung from the Board of Education the right of teachers to choose a single bargaining agent to deal with the board on matters pertaining to salary and working conditions. In the election, UFT forces won a two-to-one victory to set off a wave of rejoicing.

Another one-day strike in April 1962 resulted in salary increases and 34 fringe benefits for teachers. The success of the bargaining there has encouraged locals in other cities and this year's increase in membership (officially reported as 70,821, an increase of 10,000) reflects the New York City developments. Next year's enrolment gain is likely to be more spectacular.

The AFT majority evidently considers itself already in possession of the proper strategy to double membership in five years. At Detroit it rejected a new group led by Myron Lieberman which offered a broader, more flexible, and certainly more progressive plan.

Lieberman is aware that the AFT can never be truly successful until it enrols far more than 5 percent of the nation's teachers. He believes, however, that it is not starting with the basic handicaps (chiefly administrator domination) that could keep the NEA from becoming an effective agency in teacher salary and welfare matters. Had Lieberman won the president's office, he might have been able to set in motion changes to improve the generally poor image of the AFT as a dissident, noisy, dogmatic, and overaggressive minority group.

Certainly there are many fine and effective individual leaders in the AFT ranks. But Lieberman could not break the hold of the old guard, which was unexpectedly joined by most of the powerful New York group. The NEA can now proceed with assurance that few new ideas will appear in official AFT strategy.

The next few months and years are likely to witness a good deal of internecine strife as teachers, urged on by rival groups, decide between alternatives offered by the NEA and AFT. This competition need not be destructive, despite Mr. Mengel's heavy rhetoric charging that the NEA is out to destroy his outfit and Mr. Carr's somewhat shrill effort to arouse NEA delegates to the "dangers of unionism."

As a matter of fact, we may find that there is room for both organizations and both procedures without serious injury to either. Tactics that won in New York City would be inappropriate in Midland, Texas, while sanctions may work wonders in smaller cities where unionism is not a way of life.

In the meantime, intellectual leaders in the profession might consider the logic of a suggestion made by Mr. Lieberman before he deserted pure principle to win votes: Ultimately, the NEA and AFT should close ranks to form a truly powerful single organization for the advancement of teachers.

This suggestion sounds ridiculous now, but so, at one time, did the suggestion that the Congress of Industrial Organizations and the American Federation of Labor join ranks. There was more distance between CIO hodcarriers and AFL typographers than there is now between the AFT and the NEA. There is the same need for a united front.

Opposition to such devices as strikes and sanctions grows partly out of the notion that public employes are public servants and that servants should have few rights against masters. One consequence of this point of view is that able people avoid public employment. Hence we must not be servile, although our profession is one of service. We will get nowhere with ritualistic reiteration of chubby solidarity in one organization or another. We must seek appropriate tools and techniques to raise ourselves above "genteel poverty and public disparagement."

In short, the opposition is not the AFT if you are an NEA member, or the NEA if you belong to the AFT. Teachers must be goal-oriented, not organization-oriented. They must make their organizations serve their just goals. ●

What the Admiral Said

Suggestions for Improving Our Schools

VICE ADMIRAL H. G. RICKOVER, USN

In Education for All Children

Editor's Note: The following is taken from the summary remarks made by Vice Admiral Rickover in the hearings before the House of Representatives Committee on Appropriations conducted in May 1962 and published in the fall of 1962.

MR. Chairman, I know from the many times I have appeared before this and other committees of Congress how deeply concerned members of Congress are about the education of our children . . . I feel that no real and timely improvement will be made unless *you* take the lead and show the way . . . Congress has rightly been called the "potent and omnipresent teacher."

All great philosophers have understood that the education of youth is the primary function of society—the means by which humanity's inheritance is transmitted from one generation to another. . . . This is why education is so important, why it is our responsibility as human beings to assure that our own heirs receive their full human inheritance. . .

. If we adult Americans are not intelligent enough to figure out a way to improve American education, we cannot hope that our children will be intelligent enough to keep our nation strong and prosperous and capable of living up to its task of leading the free world.

I do not wish to deprecate the importance of high moral standards, of good character, of kindliness, of humaneness, of ability to get along well with fellow citizens. . . . But the one thing which I believe will be of the greatest importance for the future of our nation and of the free world, the one *indispensable* thing, is to bring all our children to markedly higher intellectual levels. Most of the problems they will have to cope with as individuals and as citizens of this great democracy will involve use of their minds. . . .

In fact, civilization has reached

Vice Admiral H. G. Rickover is Chief, Naval Reactors, U.S. Atomic Energy Commission and Assistant Chief of Bureau for Nuclear Propulsion, Bureau of Ships, U.S. Navy. Reported from Education for All Children; What We Can Learn from England, *a report of the hearings before the Committee on Appropriations, House of Representatives, published by U.S. Government Printing Office, Washington, D.C., 1962. 160–63.*

the point where the frontier now lies in the mind itself. Americans must conquer knowledge as formerly they conquered the wilderness. . . . Our future depends squarely on how well we succeed in developing the minds of our young men and women. We must not, we cannot permit anything to stand in the way.

I think we must be realistic and face the fact that most people do not like very much to work with their minds; this is something we must try to teach children at school; we must get them into the habit of using their minds whenever a problem requires application of reason and logic. It is this very practical necessity that makes me insist on the importance of establishing national scholastic standards, for academic excellence does not just happen. It must be actively promoted and nothing will do this better than setting children standards and rewarding them—with class promotion, good marks, diplomas, etc., if they work hard and thus succeed in meeting the standards.

IDEAS FROM BRITAIN

I do feel that there are things we can learn from English education. I would include the following:

1. Elimination of "ability to pay" from public education; retention of "ability to learn"; separate secondary schools.

2. Highly qualified teachers to whom much freedom is given in their work and whose influence on all aspects of education is great, notably in setting scholastic standards through national examinations. Total absence of nonteaching school principals and administrators.

3. The use of government grants as a means of raising national standards in education, by making acceptance of standards and of inspection to check on standards a condition for awarding grants.

4. National examinations leading to national diplomas, designed to permit great variety in selection of test subjects, yet clear-cut indication on the diploma of the type of examination taken and passed. Cooperation of all interested parties in setting up the examinations and great care in evaluating them.

These are the principal features of English education by means of which they maintain high standards while permitting decentralized management of public education. . . One or more of the above measures may prove acceptable to us; this is why I list them here.

Now as to what specific action this committee of the Congress could take to aid in correcting deficiencies in American education, I should like first to say that I believe such aid has now become indispensable. . .

I believe American education so clearly requires improvement that we must find a way to bring federal aid to bear on the education problem. For many years there have been hearings before Congress where this matter has been endlessly discussed. I suggest that Congress make a start; the problem is admittedly so complex that it will take a long time and much effort to solve it. But the important thing is to make a beginning, to tackle one item and try to solve it, so that we can then go on to another.

I suggest that the Congress try to do two things: obtain accurate information on how we stand educationally; to what degree our educational system serves our urgent needs and how it compares with educational systems in other leading nations. And second, that the Congress set up machinery for establishment of permissive national scholastic standards through examinations. These are, I believe, the two most urgent measures that need to be taken; they are measures that clearly will not be taken at all unless the Congress takes the lead.

NATIONAL COMMITTEE NEEDED

To carry out these two tasks, I suggest that a small committee of eminent, trustworthy, intelligent, and broadly educated men be set up, something on the order of the English University Grants Committee, or of our own General Accounting Office. The important thing is to keep it a small committee but one composed of truly outstanding men. . .

It would be their task to keep American education under close scrunity. To observe how it responds to our own educational needs and how it compares with education systems in other nations. This group of men would be expected also to devise a system of examinations to be taken voluntarily but to carry federal accreditation: preferably at different scholastic levels, and both at the transfer from high schools to college, and from college to graduate department or professional school; also for teacher accreditation.

It might be advisable to entrust to this small group the working out of a good system for awarding federal scholarships. . . Professionals are being educated free of charge in more and more other democracies and, of course, in the totalitarian countries. Higher education has become so expensive that not even middle-class parents can now pay for it, still less the mass of our less affluent citizens. Unless we make up our minds to pay the cost of the long education required of professionals, we shall continue to have serious shortages. . .

I suggest that in assessing the state of American education the committee be requested to confine itself to scholastic attainments. We will not win the Cold War, nor meet economic competition from the Common Market countries, nor obtain urgently needed skilled workers, technicians, and professionals by having swimming pools or school dances or even delightfully poised young people. It is in academic excellence that our schools must be brought to a point where the education they offer is—at every ability level—at least equivalent and preferably better than in any other country. No extraneous considerations ought to intrude when it comes to determining what is or what should be the technical task our schools must accomplish.

Because it lends itself to examination at different scholastic levels, I recommend the English GCE (General Certificate of Education) as a model which we might like to adapt to our own needs. I am firmly convinced that in a country where children, where everyone, is "status conscious," the raising of scholastic levels in the public schools will most effectively be brought about by starting from the top. Once you have the college-preparatory high-school students aiming at a nationally set standard, it will not be too difficult to get those with somewhat less academic ambitions to want a similar national goal to work for. This is exactly what is happening in England. . .

Any examinations so established would, to my mind, have to aim at least as high scholastically as do similar examinations abroad. The criterion is not that every child should be able to meet the examination standards but that there be several levels at which children may be tested. If we wished to do as well as England currently does, we should have to have 1 million students take a GCE-type examination each year. . . Most of them would be at ordinary level. We should also have a national examination comparable to the Secondary Modern School exam now being developed in England, which could be taken by high-school graduates who do not enter college. I believe such national examinations would contribute greatly to a rapidly raising of scholastic standards for all types of ability levels.

A committee to set standards, to keep watch over the state of American education, to point out peril points, and to keep us fully informed on our competitive position in education—this is what I suggest would aid in correcting the deficiencies in our school system. ●

ON the whole, I think we shall survive. . . The outlook is as bad as it has ever been, but thinking people realize that, and therein lies hope of its getting better.—*Jawaharal Nehru*

WE must have respect for both our plumbers and our philosophers, or neither our pipes nor our theories will hold water.—*John Gardner*, president of the Carnegie Corporation.

Are They a Waste of Time?

Teachers' Viewpoint of Faculty Meetings

EDMUND AMIDON and ARTHUR BLUMBERG

In the Bulletin of The National Association of Secondary-School Principals

THE difference betweeen what it is theoretically possible to accomplish in school faculty meetings and what seems to happen in a large majority of these meetings poses a perplexing paradox.

A review of the literature indicates that faculty meetings provide, among other things, excellent opportunities for in-service training, cooperative problem-solving of school-wide problems, and for bolstering and improving teacher morale. A survey of teacher reactions to these meetings, however, indicates the meetings fall far short of their potential. Typical teacher reactions are: "I guess we have to have them," "They're a necessary evil," and "They are a sheer waste of time."

It is rare to find a teacher who is enthusiastic about attending faculty meetings or who sees them as a positive contribution to school development or personal and professional growth.

There is little published research on the subject, despite the tremendous volume of teacher-hour time devoted to faculty meetings and what appears to be minimal positive results. This prompted us to initiate a study of school faculty meetings that had these aims: to investigate any relationship that might exist between the kinds of interpersonal activities that occur in faculty meetings and teacher satisfaction with these meetings; and to inquire to what extent school faculty meetings might be a mirror of the state of interpersonal relations and perceptions in the school as a unit.

Edmund Amidon and Arthur Blumberg are members of the Group Dynamics Center, College of Education, Temple University, Philadelphia, Pennsylvania. Reported from the Bulletin of The National Association of Secondary-School Principals, *XLVI*, (*September 1962*), *66–72.*

The project was carried out as part of a continuous program of educational research at the Group Dynamics Center, Temple University. Data was collected by administering a questionnaire to 40 elementary and 49 secondary teachers in service. They were enrolled in an introductory course in group dynamics in 1960.

The following conclusions were drawn:

Apparently it makes a great deal of difference to teachers whether or not faculty-meeting activities are faculty-centered or principal-centered. The nature of the meeting seems to be related to perceptions and attitudes teachers have about its effectiveness. The faculty-centered group tended to view their meetings as being fairly satisfactory, while those who saw the principal as being most central leaned toward rating them a waste of time. In addition, the interpersonal nature of the faculty meeting appears to mirror the state of interpersonal relationships existing in the school as a whole. The responses seemed to substantiate the hypothesis that what happens in faculty meetings tends to reflect the more general attitude among faculty members.

It is relatively easy to understand how principal behavior in the meetings, teacher behavior in the meetings, and faculty attitudes toward the meetings might be related to the type of meeting activities. It is less obvious, but perhaps as significant, that general teacher attitudes toward one another and teacher relationships with the principal are related to the kind of activities characteristic of a particular faculty meeting. The findings indicate the relationships exist and are consistent. That is, the faculty-centered group is more satisfied, is closer to the principal and faculty, and feels that the faculty is more cohesive and alert than is the principal-centered group.

FREEDOM TO SPEAK

On an item concerned with the freedom teachers feel to speak, the difference that was found between elementary and secondary teachers appears to be based on size of the faculty group. When the size of the faculty was controlled (equalizing statistically the size for elementary and secondary) there was no longer any difference. Also, while this item on freedom to speak did not reveal any significant differences between faculty-centered or principal-centered meetings, differences were evident with respect to the *perceived freedom* teachers felt their colleagues had to express themselves. The principal-centered group thought that other faculty members were rather careful in what they said, while those in faculty-centered situations said they thought the teachers felt free to say whatever they wanted.

It seems clear that the size of the meeting has something to do with the outcome of the meeting, at least in terms of freedom to speak. But what are the determinants of such a crucial outcome as satisfaction?

Certainly one related factor is the type of meeting (faculty-initiated or principal-initiated activities). However, after a careful analysis, another interesting relationship was discovered. It is concerned with the extent to which the teachers' preferred pattern of faculty meeting activities is either carried out or frustrated. The faculty-centered group carried out teachers' preferences more often and had activities that conflicted less often with teachers' preferences than the principal-centered group. When the conflict between preference and outcome was controlled statistically, there was no longer difference in satisfaction between the two groups.

SPECULATIONS

This finding makes it possible to speculate about what makes one kind of meeting more satisfactory than another. Reasonable possibilities are: It is probable that faculty-centered meetings are more satisfying, providing the preference conflict factor is minimized; and, it may be a property of faculty-centered meetings that these kinds of conflict do not appear and are more likely not to appear if the meeting remains faculty-centered in nature.

A third speculation is somewhat contradictory to the two above. It may be that, if the conflict can be eliminated in the principal-centered meeting, then some of the more faculty-centered activities associated with high satisfaction would not be necessary.

Several findings of the study appear most relevant for people interested in faculty meetings. The size of the meeting is important if a principal is concerned with maximizing freedom of participation. No ideal size is implied here, but certainly 20 is more conducive to teacher participation than is 50. The perceptions and attitudes teachers have toward faculty are related to their attitudes toward the school and faculty relationships in general. Expectations and preferences along with the degree of faculty participation in activities appear to be central in predicting satisfaction with faculty meetings.

Any study such as this has the potential for raising as many new questions as it does for answering old ones. As the authors looked at their findings, the following issues seemed to be raised:

On the basis of widespread low-level teacher satisfaction with faculty meetings, one must raise the question of whether or not these meetings, as most of them seem to be conducted, constitute a productive use of time and energy.

Perhaps it is legitimate to ask whether or not a different concept of faculty meetings should be considered; one that would take into consideration both the size and needs of the faculty and the needs and competencies of the principal, as well as the demands of the school situation.

A primary reason for widespread conflict between what teachers expect to happen and what does happen in faculty meetings may be that principals are insensitive to teacher feelings or that they don't want to know what these feelings are.

On the basis of what seems to be the tendency of the interaction in faculty meetings to reflect the state of interpersonal relations and morale in the school, it seems prudent to commence to think of faculty meetings as a barometer of school interpersonal relations.

In terms of the training of school administrators, it would appear that much more consideration than is currently given should be devoted to such areas as group processes and leadership of groups. ●

What Conditions Produce Them?

Power Struggles in Educational Systems

GALE JENSEN

In The University of Michigan School of Education Bulletin

HISTORICALLY, Americans have been unwilling to define authority relations for decision making in their organizations. Even American military organizations are not exceptions; as late as the Civil War officers were "voted in and out" depending on how their subordinates responded to the way they utilized authority. American governmental organizations manifest this characteristic in a pronounced way. The Constitution makes it possible for a citizen to re-present his case to a different section of government on receiving an unfavorable response from one section.

While this style of handling authority problems has certain advantages—for example, that of preventing unquestioning conformity to the pronouncements of those holding authority roles—it also has some definite disadvantages. One is that it produces a series of authority and power struggles which takes its toll in productivity and morale.

This same American behavior extends itself into educational systems. It perhaps would be profitable to examine the specific conditions which produce authority and power struggles in educational systems. A better understanding might enable us to cope with power struggles more effectively—at least to keep them from manifesting themselves in such extreme forms as high teacher turnover, discharge and termination of contracts, highly publicized resignations, and perennial scuffles between different organizational roles and units.

These authority and power struggles develop mostly in accordance with the prevailing conditions pertaining to control of organizational decision-making.

It is possible to identify and discuss several kinds of organizational decision-making conditions which create authority and power struggles.

One set of conditions is those in which decision-making is nonpublic or nonvisible to the persons directly affected by the decisions. Only a few persons know how any particular decision was made and the

Gale Jensen Is Professor of Education, University of Michigan, Ann Arbor. Reported from The University of Michigan School of Education Bulletin, *XXXIV (October 1962), 2–6.*

personnel affected cannot determine the rationale or the facts employed in making the decision.

These conditions tend to make personnel suspicious and noncommunicative after they have been adversely affected. It is as though some invisible hand were at work directing the affairs of the organization and the working lives of personnel. Under these conditions there is little or no way to correct bad decisions, and personnel are likely to become apathetic and resentful when decisions are bad.

When a series of bad decisions are made under these "nonpublic" conditions, personnel are likely to attack the educational system and engage in behavior designed to undo or wreck the educational system itself. The authority-power struggle is likely to take this form because it enables those adversely affected by decisions to use the "bad" decisions to attack the prevailing system of decision making.

BAD DECISION MAKING

A second set of conditions which produces power struggles has to do with bad decision-making for goal setting, planning, and resource allocation for the educational system when external social and economic conditions are changing drastically. Power struggles under these conditions are likely to be manifested in the formation of private and "loyal opposition" groups trying to determine what action should be taken to correct the situation "before it is too late." Personnel energy is given to criticizing decisions and to expressing concern for the welfare of the organization. In its extreme form, the "opposition" will take action, privately and publicly, to demand or force resignation or discharge of incumbents holding authority for making these decisions. Opportunity to publicly display and highlight how bad the decisions are will be exploited fully.

A third set of conditions producing power struggles is characterized by some persons who use organizational resources as patronage to build personal power and for jobs holding a good deal of authority. In other words, decisions about the allocation of resources are based on how much allegiance the decision-maker can obtain from personnel for supporting his selfadvancement plans rather than on the most effective use of resources for accomplishment of organizational goals.

Another set of conditions which produces power struggles has to do with differences between personnel with respect to what the proper values and objectives of the educational system should be. Struggles manifested under these conditions usually take the form of scuffles between teachers and administrators of the humanities, the arts, sciences, practical arts, and professions. Differences in values and objectives become particularly apparent with respect to appointments on important policy-making committees and of such officers as presidents, principals, deans, and superintendents. If one group doesn't like the values and objectives, it precipitates a movement to get their men appointed to the strategic posts. Candidates for these posts usually are scrutinized for their values and attitudes about educational problems and organization more than they are for their actual competencies.

OUTSIDE INFLUENCES

A fifth set of conditions producing power struggles is created when an outside organization which supplies resources or holds police power continually demands an accounting of organization activity. There follows a tendency to employ personnel skillful in organizing the kind of reporting, administrative, and accounting systems which keep the "enemy at bay," but who are unable to contribute to the instructional work. To personnel who conduct the basic work of the system, the newcomers appear to be meddlers and bureaucratic nuisances whose salary and program costs are borne at the expense of programs dealing with the real work of the system. Outside governmental units seem to be particularly adept at producing these authority struggles in organizations and thereby reducing the returns possible from tax dollars.

Still another set of conditions from which power struggles develop are found where the personnel in authority fail to exercise this authority to obtain decisions needed by the educational system. This produces frustration and resentment in personnel who want to do their job well, but who cannot obtain decisions when needed. Gradually some personnel try to fill the decision-making vacuum by "illegally" supplying the kind of decisions needed. When discovered, this upsets the person holding the authority for making such decisions, and the power struggle is on.

There are other conditions which produce power struggles, including: increasing organizational size causing central authority roles to become bottlenecks; failure of personnel to learn decision-making systems; poor definition of authority allocation; and ineffectual allocation of decision-making authority. However, the six conditions noted above are probably most common.

The points which should be derived from discussion of these conditions are: that they are common to, or are likely to be found in, most educational systems; and that they seriously reduce the productivity of the system and its capacity to make the structural changes needed for effective and efficient accomplishment of its goals. This leads to loss of investment and explains in part why increases in investment do not always produce increases in productivity in education. It also explains the inability of educational systems to make needed organizational and program changes to increase their effectiveness as well as the serious morale problems and loss of personnel whose replacement is extremely costly to the system. ●

Does Grouping Make a Difference?

JANE FRANSETH

In Toward Effective Grouping

DO children learn more when grouped according to ability than when grouped heterogeneously? Do some ways of organizing an elementary school make a greater difference than others in what children learn, the quality of their learning, how much and how well? These are among questions raised by educators and lay citizens, especially those concerned about and responsible for elementary-school education. There are no easy answers.

Examination of research on the relative merits of different grouping procedures for pupil learning and achievement may raise as many questions as it answers, especially in unexamined areas of grouping in the elementary school. The findings set forth below are from reviews of evidence available.

When differences do occur in tested achievement between pupils grouped according to ability and those grouped heterogeneously, examination of research reveals that factors other than particular grouping procedures are responsible. Some studies seem to show achievement gains in favor of ability grouping and some in favor of heterogeneous grouping. Still others show little or no significant differences in pupil achievement as measured by standardized tests.

Studies examined include examples of ability-type groupings and several types of heterogeneous procedures. Ability-type groupings include grouping according to IQ's, mental-maturity ratings, levels of reading achievement, teacher judgments, or a combination of these. Heterogeneous-type groupings include one-grade classrooms, multiple-graded classrooms, nongraded organization, and others representing efforts to widen the range of individual differences in a classroom. The number of such situations examined is too limited for more than a tentative conclusion. A factor of specal interest is that, on the average, achievement gains

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made by pupils in classrooms representing a wide range of differences among pupils were higher than gains made on the average by pupils in ability-grouped classrooms.

The concept of a single-grade standard, which lingers despite much research to the contrary, is a serious handicap to full development of a child's potential, according to some authorities. Research supports that human variability and a wide range of individual differences constitute normal phenomenons. Some authorities maintain that individual differences, when understood and accepted, are recognized as a precious asset. Used to full advantage, they enrich resources for learning. To the extent that appropriate opportunities are available, it appears that children help to improve learning opportunities for each other.

Many studies on grouping deal only with the effects of grouping on pupil achievement in skill subjects as measured by standardized tests. Little research has been conducted to determine possible effects of different grouping procedures on growth in ability to think, ability to make sound judgments, developments of such values as concern for others, development of creativity, etc.

Available research seems to indicate that children supposedly grouped according to ability are no more likely to gain greater achievement than their counterparts grouped heterogeneously. Is this so? What are the reasons? Some maintain that grouping children according to ability (maturity, mental, or achievement levels) is a logical approach to meeting individual differences. An examination of some accepted assumptions follows.

SOME ASSUMPTIONS

Children can be grouped according to ability. It is becoming increasingly difficult to accept that they can. Although grouping children according to ability may be possible to a limited extent for short periods, the number of different interrelated factors make it difficult if not impossible to achieve. Evidence indicates that changes within individuals take place continually so that homogeneity—which might have been obtained when a group was first formed—will continue to move toward heterogeneity, especially in the early grades.

Testing or measuring instruments can measure adequately a child's ability and/or his learning potential. The assumption that this is possible is in need of continuous re-examination. New knowledge about the nature of intelligence and ability to learn is continually coming to light. Many dimensions of intelligence identified recently are not included in commonly used tests.

The results of testing which help to measure various mental abilities may be useful for studying children individually. It is questionable that knowledge gained in this way makes a difference in any long-term expectations for ability-grouping purposes.

Speed in learning is the most important characteristic of learning ability. A yes answer to this is also an assumption needing further study. There are many other dimensions now recognized as a part of intelligence which reveal serious limitations of traditional approaches to testing intelligence. Skill in bringing new knowledge to bear on new problems is only one dimension of many identified recently through research, resulting in increased knowledge and understanding about learning.

In view of the many and varying elements making a difference in each individual's ability to learn, it seems unlikely that homogeneous grouping according to generalized learning ability can actually be accomplished except in a very limited sense.

If abilities and attributes have been assessed, a child will retain the attribute that governed placing him in a group selected as appropriate for him. The assumption that he will is challenged in a report by Harold Shane: "The uneven growth patterns of individual children make grouping hazardous. One is never completely certain that a given child will long retain personal and academic attributes governing placement in a group."

Learning takes place more effectively if the range of differences in pupil activity is materially reduced. An affirmative answer does not appear to be supported by available evidence. But it is often assumed that grouping according to ability reduces the ranges of ability considerably so that the same or similar learning activities will be suitable for the whole group. Evidence supports that unless the children are seriously deprived in some way, increased heterogeneity is most likely to result. However, differences in such groups may not become so obvious as in classes heterogeneously grouped from the beginning. So the device itself—homogeneous grouping according to ability—in some situations seems to lower recognition of the need to provide for individual differences.

Grouping children according to ability fosters development of desirable attitudes and healthy selfconcepts. The assumption that this is so is based on several assumptions, some of which stem from the judgment that grouping according to ability provides for meeting learning needs in accord with individual differences in ability. Although studies examining attitudes and selfconcepts are too limited to make conclusions, much of the evidence seems not to support a generalization that ability grouping contributes to the development of desirable attitudes and healthy self-concepts, especially among slow learners.

From the evidence available, it would seem that ample opportunity for flexibility in grouping is an important guiding principle ●

A Diagnosis and a Remedy

Improvement of Educational Research

ARTHUR R. JENSEN

In Teachers College Record

THE behavioral sciences subpanel of the President's Science Advisory Committee has issued a report which, among other things, points out the ". . . failure of education to make technical advances comparable to those seen in other aspects of our national life."

In partial explanation of this failure, the report states that ". . . for the past 25 years few outstanding research workers in the behavioral sciences have exhibited interest in education research."

Why should there be this lack of qualified research workers? It is especially perplexing when one considers that during the past 20 years more doctoral degrees have been granted in education than in any other field. During this period, 16 percent of all doctorates awarded in the United States have been in education. Physics, chemistry, psychology—each has only about one-third as many.

Although the doctorate traditionally signifies interest and competence in research, further evidence of the dearth of significant research in education is the fact that most of the substance in books on educational psychology has come from the fields of psychology, sociology, and anthropology, rather than from educational research itself.

The big question is why, when it has all necessary elements for basic scientific research and its technological application, has educational research failed to live up to its promise?

Unless the roots of the trouble are exposed, any prescribed treatment risks being aimed at superficial symptoms instead of at basic causes. For instance, insufficient money at the moment is only symptomatic—not a basic cause. It is even possible that too much money is currently going down the drain in the name of educational research. To some extent, of course, a certain amount of seeming waste is inevitable even in good research. Every good experimenter has "duds," experiments which foreseeably fall short of answering questions to

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which they were addressed. Such failures are not cause for joy; but they are not despised by the scientist, who views them hopefully as steps to an experimental success.

But another kind of failure, and education has more than its fair share, is the "safe" project in which the variables are so trivial, local, or unreliable that, even when the research goes exactly as planned, the results and conclusions neither answer nor give rise to any fundamental questions.

ROOT OF THE PROBLEM

To get to the root of the problem, the preparation of potential educational researchers must be considered. They are, for the most part, the students working for doctoral degrees in university departments of education.

Much of the scarcity of research talent in education may stem from the probability that a sizable proportion of its students differ in certain important ways from the majority of graduate students in other sciences. It is known that, in general, students in education are older; they are lower in scholastic drive and aptitude, and they undertake their graduate work with comparatively little specialized knowledge in appropriately related fields. All but a minority have shunned scientific subjects in undergraduate years. While in other fields some background in the subject is essential as a prerequisite for graduate courses, education students come from a variety of undergraduate backgrounds, often with little connection with graduate fields of specialization.

Many of the older students are school teachers working halfheartedly and sporadically for advanced degrees. Most of them regard the doctorate as a union card for advancement in the public-school hierarchy. Scholarly or scientific motives are conspicuously lacking. Moreover, students with a background in school teaching often come to graduate school so full of the immediate, practical problems of the classroom that they are intolerant of the "abstract" or "theoretical." Few of them become interested in fundamental problems, as contrasted to students in other sciences.

One effect of these conditions is that many graduate courses in education are introductory courses, often conducted on an undergraduate level. This is unavoidable in some strictly practical courses which are necessarily both introductory and terminal. Unfortunately, many students enter doctoral programs in education having only such courses in their background, forcing instructors to pitch courses in a low intellectual key. Graduate work in measurement, statistics, educational psychology, and child development should presuppose a substantial background in mathematics, statistics, physiology, and psychology.

At present such standards generally do not prevail and the education department in most universities is probably the only one in which any reasonably literate layman could enrol in graduate courses with a fair assurance that, if he tried, he could receive consistently passing grades. Training at this level cannot prepare one for research in education or in any field.

The most damaging consequence of this state of affairs is that schools of education attract a higher proportion of mediocre students and fail to attract a proper share of the intellectually able. Mediocre students lower the tone and standards of the courses, which in turn fail to attract more able students, which further lowers the standards, and so on. It is Gresham's Law operating in the academic world.

While the best students in education are as good as the best in any field, as judged by scholastic aptitude tests, education also has a greater proportion of students of low academic ability. If the lower one-fourth to one-half were not admitted as doctoral candidates, graduate students in education would probably be comparable to those in other departments, at least in scholastic aptitude.

Raising standards is becoming increasingly urgent. With the growing percentage of high-school graduates going on to college each year, we are faced with an increasing number of the academically untalented in the college population. If standards of admission to graduate programs in education remain unchanged, more and more inferior students will gravitate into education for advanced degrees.

The implications for educational research are striking, for there is a correlation between a student's ability and the quality and sophistication of his research.

To do research on the important fundamental problems of how children learn and why they sometimes fail to learn requires rigorous experimental studies and often laboratory investigation. Most students in education have not acquired a taste for this type of inquiry. It lacks appeal because it is often conceptually one or two steps from the emotionally toned problems the student recalls from his experiences as a classroom teacher. It is as if an electrical-engineering student could not become interested in mathematics or physics or in anything not closely related to the few electric appliances at home.

This orientation also makes for research that is data oriented rather than problem oriented. Data-oriented research is determined by the data already available or most easily obtainable, regardless of triviality. Specious "problems" are concocted for the convenience of using "dead" data readily at hand in school files. Such research usually lacks continuity and consists mostly of unrelated one-shot studies that never add up to anything significant. Yet long-term, problem-oriented research with some basis in psychological theory is especially needed on many educational problems.

If my diagnosis of the ills of educational research is in the main correct, the essentials of the remedy seem indicated clearly.

REMEDY

First, there must be improvement of the intellectual quality and the scientific aptitudes and motivations of graduate students in education. This cannot be achieved merely by eliminating students who do not meet a high standard. It will be necessary to attract into education some of the ablest students in other fields, mainly those in the behavioral sciences. This will not be easy, for there are several factors tending to keep the best graduate students out of education.

One factor is the closed-shop professionalism of many schools of education. They solicit and encourage only graduate students who have come up through the ranks as school teachers and hire only professors who meet the same requirement. This creates a selective bias against the potentially best researchers.

Another factor is the lower prestige of education in the university community—which is merely a symptom and would disappear if proper remedies were applied. To outsiders, education may not seem to afford an intellectual challenge. Students in other fields are often ignorant of the rich research potential for their own specialities (e.g., psychology, linguistics, sociology, anthropology) in educational contexts. Education is a fertile field for the behavioral scientist, and educational problems can provide a challenge at all points along the continuum running from "pure" research to research on problems of application.

To attract able students a combination of devices is necessary. First, a portion of the money now being spent on educational research might in the long run be more profitably used for scholarships and fellowships to attract superior talent. Most of this talent will come from the substantive disciplines basic to education.

For this proposal to be successful, education must cease to be identified in the eyes of the academic community merely with teacher training; for when the major responsibility of a department of education is teacher training, educational research is handicapped. The preparation of teachers is vitally important, and it should itself be informed by the results of research. But a department whose major responsibility is training public-school personnel is not likely to provide the atmosphere that attracts and holds predominantly research-minded students and faculty.

Educational research, as a lifetime career, calls for the dedication, persistence, and long-term search that are expected of any creative scientist. Its students must be recruited from among those having such inclinations, and they must be nurtured in an atmosphere both congenial and challenging to their talents and ambitions.

Hence my major suggestion: Departments of educational research should be established in universities *apart from the schools of education.* The main function of the latter would continue to be training of public-school personnel. The department of educational research, in contrast, would have no direct responsibility to the community; no formal connection with state agencies of education; with teacher training; or with the granting of school certificates. It would be strictly a graduate department with standards fully consistent with those of other graduate departments. It would have its own nucleus of advanced courses and seminars, and it would grant only the Ph.D., possibly in collaboration with other academic departments. Being interdisciplinary, its faculty would be made up of persons in various fields, predominantly the behavioral sciences and statistics, holding joint appointments. Students would take graduate courses in the department of their speciality along with courses and seminars dealing with educational applications of these fundamental disciplines. The student's dissertation would have educational relevance, broadly defined.

This proposal would not automatically solve all problems of improving educational research. But it would be a realistically hopeful beginning. From such a department of educational research one could expect certain benefits, though it may take some time for them to become fully evident. It would provide a center for basic research in education with the advantage of having research talent from all relevant sciences brought to bear on educational problems. With superior students from other disciplines coming into educational research and working with faculties of various departments, the attractions and research potentialities of this field would become better known.

Creating these conditions would be an important step toward discovering what application of science and intelligence holds for the betterment of education. The time to start is now. ●

Strengths Well from Several Sources

"ONE of the major problems facing the American people lies in our general carelessness in the support of the basic branches of learning.

"One of the major deficiencies in our national effort to meet the challenges before us is the almost complete failure of the American people to recognize that the strength of a nation lies in its art and music and literature just as much as in its physics and chemistry or its electrical engineering."—*Sterling M. McMurrin,* former U.S. Commissioner of Education.

Is Johnny's Teacher Reading?

The Teacher's Professional Reading

DOROTHY G. PETERSEN

In
The Elementary School Journal

EDUCATORS have long been concerned about the 30-year lag between educational theory and classroom practice. With the steadily increasing volume of research, rapidly changing curriculum, methodology, school organization, and instructional tools, there is serious danger that the lag will become greater.

A most effective way of avoiding this danger is a conscientious program of professional reading by classroom teachers. There may well be a close connection between how well Johnny reads and how much his teacher reads.

Most school people agree readily that the classroom teacher does not read as much professional literature as he should. The usual explanation is that there is not enough time—the teacher's day is too busy. Some will say that the classroom teacher is not interested in professional literature. But neither lack of time nor lack of interest may be the complete answer.

Another consideration may be the amount of professional literature available to the elementary-school teacher. Assuming that a teacher is a professional person, interested in keeping abreast of new developments and current research, the question arises, "Does he have ready access to an adequate supply of professional books and periodicals?"

This question prompted a study of the size, content, and use of the professional library in the elementary school. The following is based on information acquired from a questionnaire survey of principals of elementary schools. Forms were mailed to 730 principals in 50 states; 424 principals returned the completed forms.

Two conclusions appear to emerge from the responses. First, there is a great range in the quantity of professional reading materials available to teachers in their own elementary schools. The extremes are the school with a 500-title professional library and a wide assortment of educational journals and the school that has no collection of its own and is 50 miles from the nearest source of professional books and periodicals.

Second, the evidence generally substantiates the belief that the ele-

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mentary-school teacher is not an avid reader of current professional literature. This cannot be attributed entirely to a lack of time or interest. The dearth of readily available materials is at least partially responsible in some situations. This is supported by the fact that only 326 schools, or 76.9 percent of those covered in the survey, had collections of books and periodicals; by the fact that only half of these collections were purchased by *regularly* allocated school funds; and by the fact that almost a third of the principals recognized that their teachers did not indulge in extensive professional reading.

Apparently in most schools the principal has the responsibility for the professional library. He was named most often as the person in charge of the collection. Also, in about a third of the schools the professional library was kept in the principal's office. Since this is usually a very busy place, the question of maximum availability can be raised. Other locations mentioned in order of frequency were the school library, the teachers' room, the librarian's office, all-purpose room, the entrance foyer, and the materials closet. Forty-four principals reported that no one was in charge and that teachers merely "signed the books out when they wanted to use them."

The survey established that professional journals are as important as books in acquainting teachers with educational theory and research. In addition to 326 principals who reported having a professional library of books and periodicals in their schools, 36 reported having periodicals but no books. Ninety-seven different journals, exclusive of state journals, were named as part of the school's professional library.

THE TOP TEN

The ten top professional periodicals in order of frequency were: *The Instructor, Grade Teacher, Elementary School Journal, Elementary English, Childhood Education, The Education Digest, Arts and Activities, School Arts Magazine, Arithmetic Teacher,* and the *PTA Magazine.*

It appears that periodicals are used far more than books. Forty-one percent of the principals reported that periodicals were used extensively, responding with such comments as, "used from cover to cover," "very thoroughly used," and "constantly in demand."

Based on the findings of the survey several recommendations can be made. If professional reading is to play a more vital role in the growth, education, and professional improvement of inservice teachers, these recommendations are in order.

A concerted effort should be made in professional education courses to acquaint prospective teachers with the wealth of professional literature available. Education courses should acquaint prospective teachers with viewpoints of many authors, introduce them to many professional journals representing varied specializations, and encourage them to consult reputable sources of original research. In this way, a stimulus for professional reading and inquiry may be provided which the teacher may very well retain throughout his career.

A second recommendation is that boards of education and administrators must attempt to provide elementary-school teachers with readily available professional reading materials in their schools. Obviously, it is neither practical nor possible for a single elementary school to maintain a comprehensive professional library of several thousand volumes. Teachers will still have to have personal professional libraries and use nearby public and university libraries. In some urban communities, it is entirely possible that a centralized collection serving all schools may be more practical than individual school libraries.

It does not seem impractical to suggest that at least $100.00 per year be allocated to each elementary school for purchase of professional books. The median expenditure now, according to the survey, is $25. This would make it possible to add about 20 new titles each year, considerably more than most schools now do. To rely wholly on generous individuals or groups or to rely on peanut sales and class plays for book purchases, as many do now, appears indefensible.

A third recommendation is that, when materials are provided, responsibility for stimulating their use falls on the principal. Professional reading can be encouraged by displaying new materials in a central location, by displaying reviews of books and articles on the faculty bulletin board, and by devoting part of a faculty meeting to review and discussion of a certain book or article. Other successful techniques include making the purchase of books and periodicals the responsibilities of a teachers' committee; organizing voluntary, informal discussion groups; and delegating responsibility for the materials collection to some one person other than the principal to avoid loss and irresponsible borrowing.

Also, if at all feasible, the collection should be available to teachers throughout the summer months, when their time is not at such a premium.

The increasing challenges facing education today demand that the classroom teacher be not only an able practitioner, but also a competent scholar. What better way to help him achieve this goal than to encourage and facilitate his professional reading? ●

IN 10 years, mankind could practically wipe out illiteracy—which now stands at 45 percent—if it wished to do so. —*Rene Maheu,* acting director-general, Unesco.

The Creative Mind Hears

A Different Drummer

In The Shape of Education for 1962–63

Reported from The Shape of Education for 1962–63, *a handbook on current educational affairs written by editors of* Education USA *and published by National School Public Relations Association, in cooperation with Division of Press and Radio Relations, NEA, (1962), 51–52.*

A PROFILE of the creative mind is being drawn by University of California scientists after a six-year study of hundreds of persons—writers, research scientists, mathematicians, architects, and others—rated as highly creative by leaders in fields in which they operate. Out of the data recorded, these conclusions emerge:

The creative person is intelligent (but not necessarily markedly so), independent, curious, skeptical, emotionally committed to his work, energetic, esthetically sensitive, introverted, nonconformist, occasionally egotistical, almost always actuated by a "sense of destiny." He has few interests in common with farmers, carpenters, accountants, bankers, policemen, or undertakers. His interests, whatever his field, often parallel those of artists, psychologists, writers, physicists, and musicians. He is not very interested in details, is concerned with implications, symbolism, meanings.

"Creative people are not well rounded; they have sharp edges," says Donald W. MacKinnon, director of the University's Institute of Personality Assessment and Research, which has been conducting the study under a grant from the Carnegie Corporation. Several books reporting on the investigation are in preparation. Ultimate outcome may be a means of predicting creativity, but now it is concerned with discovering characteristics of creativity in those who have demonstrated that they possess it.

Creative persons usually demonstrate early in life the skills necessary for the careers they ultimately choose—architects, as children, tend to be good at drawing and mathematicians always had a talent for math. But there are creative people who arrive late—they have so many skills and aptitudes that they find it difficult to choose among them.

The values held by creative people were found to be significant. Among them the esthetic and theoretical are the strongest; the economic tends to be the weakest. The researchers found it surprising that this held true for all creative groups; they had expected that a mathematician would be found to cherish theoretical values and an architect to have high regard for esthetic values. Finding that both of these, and all other creative groups, gave equally high rating to esthetic and theoretical values, they came to the generalization that all creative people are able to tolerate the inner tensions created by holding conflicting values or, more likely, that they are able to resolve these conflicts.

Other findings support the theory that creative people are more able than most to express the opposite sides of their nature, to achieve a reconciliation of the conscious and the unconscious, reason and passion, rational and irrational, science and art.

Another common characteristic discovered was that creative people seem to have a positive preference for complexity, even for disorder. When presented with a series of drawings among which to choose, they preferred the abstract, even the chaotic. When given an opportunity to create mosaics using few or many colors, they chose to employ more colors than the less creative. The less creative individual, the researchers concluded, has a compulsion to impose order immediately; the creative person sees the possibility of imposing a higher level of order after having experienced disorder.

Schools may overlook the creative student, the researchers have discovered, because, often, he is not a "satisfactory" student. He may as Thoreau suggested, "hear a different drummer." He may resist group work, follow his own interests, set goals for himself other than those set for the class. One of the most highly original architects studied turned out to be one who had been advised by his college dean to drop the subject because he had no talent for it. Many, MacKinnon said, had academic records which would bar them from today's graduate schools. They weren't "grade getters."

A certain amount of intelligence seems to be necessary, but above the threshold, which appears to be an IQ of about 120, it doesn't make much difference, research shows. ●

● I DREAD success. To have succeeded is to have finished one's business on earth. . . Then, too, I like fighting successful people, attacking them, rousing them, trying their mettle, kicking down their sand castles so as to make them build stone ones and so on. It develops one's muscles. Besides one learns from it."—*George Bernard Shaw.*

● WRITING to me is not an exercise in addressing readers, it is more as though I were talking to myself while shaving. . . All that I ever hope to say in books is that I love the world. I guess you can find that in there, if you dig around."—*E. B. White,* former *New Yorker* editor.

Fact or Fiction?

Mark Hopkins and the Log

WALTER CROSBY EELLS

In College and University

"THE ideal college is Mark Hopkins on one end of a log and a student on the other." This is perhaps the most widely known epigrammatic characterization of the perfect college to be found in the literature of American higher education. It expresses vividly the concept that buildings, equipment, laboratories, and even libraries sink into insignificance in comparison with inspiring teachers.

This characterization suggests a peaceful sylvan scene, deep in the primeval forest, with only a fallen tree for a campus, with sunshine filtering through leafy branches, while student and professor, seated on the log, are oblivious of all else except the eternal search for truth. Just how appropriate such a log would be for a comforting and inspiring collegiate experience in the midst of driving rains or the deep snows of a New England winter is something to imagine.

This striking, though perhaps questionable, characterization of the ideal college is attributed to James A. Garfield martyred twentieth president of the United States. But did President Garfield (he was Congressman Garfield at the time he is supposed to have made the remark) ever really utter these words? Or must this fallen tree trunk, hoary with academic moss, be relegated, like Washington's cherry tree, to the realm of picturesque legend?

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There is agreement among writers on the subject that the epigrammatic characterization was supposedly originated by Garfield at a dinner meeting of Williams College alumni at Delmonico's in New York the night of December 28, 1871. Seventy or 80 alumni and undergraduates of the college attended. The principal address was given by William Cullen Bryant, honorary alumnus, but the speech that had the greatest impact was one by Professor John Bascom of Williams. Bascom criticized conditions at Williams—its equipment, buildings, administration, and trustees.

Garfield, then Congressman from Ohio, was asked for his opinion. He responded, speaking extemporaneously on the value of inspired teaching compared to the physical equipment of the college. No copy of his remarks is found in any of his collected works or addresses; only various reports on what he said have been made from memory by some who heard him.

The meeting was reported in New York newspapers, especially Bascom's speech, but Garfield was mentioned only incidentally or ignored in the news reports. Garfield's remarks were, however, commented on in the college's student publications. They were distorted, criticized, and given unfavorable editorial comments in one student paper, *Review,* which moved Garfield to reply in a letter, which was published. He wrote:

" . . . . I insisted that brick and mortar and even museums and libraries are far less important than a strong faculty, well supported. I said that no amount of material apparatus could have given me the intellectual aid which I received from the faculty and particularly from the president."

This is the nearest to a reliable contemporary report of Garfield's speech, made by himself within a few weeks of the affair.

THE "LOG HUT" VERSION

The first statement of the alleged "log" aphorism apparently was not published until more than 30 years later, and it appears to depend chiefly on the questionable memory of a single popular lecturer. Meanwhile, however, only a few years after that meeting, quite a different and more reasonable version of Garfield's remarks was published in more reliable sources and corroborated in substance by other writers, some of whom were in attendance at the New York meeting. Instead of a "log," this version mentions a "log hut"—although some variances of recollection include a "log cabin," a "pine bench" (without the log cabin mentioned), and even a "brick shanty."

The first published report of the meeting which contained specific mention of the "log cabin" version seems to have been in *Harper's Magazine* in 1881. Nathaniel H. Egleston, a professor at Williams College, wrote: "The General (Garfield) . . . . expressed himself as conscious of the value of books and apparatus. But, he said, 'give me a log cabin in the center of the State of Ohio, with one room in it, and a bench with Mark Hopkins on one end of it and me on the other, and that would be a college good enough for me.' "

In that same year (1881), Burke A. Hinsdale, president of Hiram College and a close personal, lifelong friend of Garfield, quoted Garfield as saying:

"I am not willing that this discussion should close without mention of the value of a true teacher. Give me a log hut, with only a single bench, Mark Hopkins on one end and I on the other, and you may have all the buildings, apparatus, and libraries without him."

This version, known as the Hinsdale version, was included in a memorial volume, *President Garfield and Education,* prepared immediately after Garfield's death by

Hinsdale with the cordial approval of Mrs. Garfield. It would seem, therefore, that great confidence should be placed in his statement regarding the "log hut" as the nearest to a primary and reliable authority.

THE "LOG" VERSION

The "log" aphorism apparently originated and was popularized between 1890 and 1900. Carroll A. Wilson, who made a thoroughgoing and scholarly effort to find out what Garfield really said at the Delmonico meeting and who published his study in the *Colophon* in 1938, gave complete credit to Senator James J. Ingalls of Kansas for the "log" version. Ingalls, who was a fellow student with Garfield under President Hopkins as well as a fellow congressman with Garfield in Washington, was a popular orator on the Chautauqua lecture circuit after his defeat for re-election in 1890.

A biography of Ingalls, published in 1902, includes among the selection of his works, one on "Garfield: Man of the People." In style, content, and length, it appears to have been designed as a Chautauqua lecture. In this lecture, Ingalls portrays in great detail and dramatic language Garfield's death and funeral. The pertinent portion of the oration, for our purpose, is:

". . . . He always felt and manifested a peculiar interest in his alma mater and in President Hopkins, whom he regarded as the greatest and wisest instructor of the century. 'A pine log,' he said, 'with the student at one end and Doctor Hopkins at the other, would be a liberal education.' "

This statement by Senator Ingalls appears to be the origin of the common "log" form. No instance of its earlier use appears to exist. Wilson, in his investigation, was unable to date this oration, but he concludes that the "log" form of the quotation was not known prior to 1891, 20 years after its alleged origin, but that it had become familiar by 1900. He says, "No other man (than Ingalls) with a Garfield-Hopkins link traversed the United States on lecture platforms, talking about that log, between 1891, when the quotation was not known, and 1900, by which time it was familiar."

And so the "log cabin and pine bench" version was transformed to the "log" version. In this transformation—or "tinkering with Garfield's words," as Wilson expresses it—there is no necessary implication of conscious or deliberate dishonesty on the part of Ingalls. Depending only on his memory or on indirect reports, the popular lecturer, not writing a historical research paper, may easily have thought that he was expressing the substance of Garfield's original statement.

The Hinsdale version presents a more reasonable and realistic picture. We still have a log, or rather several logs, but they constitute a log hut (the first actual building of several American colleges), while Mark Hopkins and the student are more reasonably seated on a "simple bench" fully protected by the crude and effective log hut from the rigors of the New England climate. This is not only a much more reasonable characterization for Mr. Garfield to have made, but it has the additional virtue of probably being the true one. Incidentally, it was not an unnatural one for him to use, since he, himself, was the last president of the United States to have been born in a log cabin.

Wilson, after his comprehensive study, concluded that:

"On the whole, I think we can surmise that although nobody got it right, and nobody got all of it, what Garfield *really* said on December 28, 1871, at Delmonico's was: 'A log cabin in the woods, with a pine bench in it with Mark Hopkins at one end and me at the other, is a good enough college for me.'"

Wilson adds, however, regarding the "log" version, that "the error has probably gone too far ever to be caught up with."

Thus, as President Washington had his picturesque if inventive Parson Weems, none too careful of historical accuracy, so Senator Ingalls seems to deserve the questionable credit as the Parson Weems for President James A. Garfield. ●

Of Men, Time, Space and Taxes

● Every time I paint a portrait I lose a friend.—*John Singer Sargent.*

● To be nobody-but-myself—in a world which is doing its best, night and day, to make you everybody else—means to fight the hardest battle which any human being can fight, and never stop fighting.—*e. e. cummings.*

● Science has put man in his place; one among the millions of kinds of living things crawling around on . . . a minor planet circling a trivial star. We can't really face the implications of this. . . A billion years into the past and a billion light years into space remain abstractions that we can handle glibly, but hardly realize.—*Marston Bates.*

● As for social pleasures, one of the highest enjoyments is agreeable company and good conversation, and I especially like men, women, and children.—*William Lyon Phelps.*

● An income tax form is like a laundry list—either way you lose your shirt.—*Fred Allen.*

To Cut Down Dropouts

Say YES to Teens

CLAIRE GLASS MILLER

In The PTA Magazine

ASK the average teenager his most pressing problem and the odds favor that he will mention money. The need for money lures many away from schools—right into the ranks of the unemployed. James B. Conant labeled our million jobless high-school dropouts "social dynamite." New waves of unskilled dropouts are flowing into the labor market before jobs can be found for those already there.

Teenagers themselves have thought of a solution: part-time jobs that keep kids in school and provide the money they need.

Fourteen years ago, student leaders in Phoenix, Arizona, started the Youth Employment Service—quickly dubbed YES—as a clearinghouse for after-school and summer jobs. Today YES has branches in 35 cities and has helped thousands of boys and girls through high school and college.

Karin Stallcup, a resourceful junior at North Phoenix High School, proposed the idea at a governor's conference on juvenile delinquency. Politely accusing state experts of having myopia when they suggested more recreation centers as a means of keeping kids out of mischief, she contended that teenagers wanted more *jobs* not fun.

"We want something to do, some adult responsibilities," she urged. "We need our own employment agency. Give us a chance and I bet we could run it ourselves."

Claire Glass Miller, author and editor, is Director of Youthways. Reported from The PTA Magazine, *LVII (November 1962), 4–7.*

Rallying behind her, student representatives from Phoenix's high schools organized an agency with Karin as director. They canvassed the area for jobs. Karin was invited to civic luncheons, where she pressed relentlessly for jobs. The community responded with requests for yard workers, baby sitters, typists, lifeguards, housekeepers, clerks, delivery boys, farm workers, etc.

After the first year, the teenagers decided that YES should be on a more business-like basis with a paid staff. They needed a sponsor. From several inquiries, they chose a humanitarian club called Sertoma—named for "service to mankind." Sertoma clubs in other cities noted the decrease in dropouts in Phoenix schools and won approval of the idea by its international headquarters in Kansas City, Missouri. As a favored Sertoma project, the idea has spread to 25 states.

Although some YES bureaus are

still staffed by teens, most have an older person as director. Regardless of their age, the adult directors have a youthful enthusiasm—calling kids long after office hours to tell them of jobs, lending them money for haircuts and shoes, and bailing them out of trouble at home, caused perhaps by a runaway father or an alcoholic mother.

The fourfold aim that emerged in Phoenix—to build character, to build careers, to ensure welfare, and to render employer service—has been widely adopted by other groups.

Earning money builds character by building selfrespect. Teenagers learn to be punctual, conscientious, responsible. Jobs that later on lead to permanent positions foster career building. Moreover, YES helps youngsters choose their permanent jobs as well as to land them. A budding lawyer runs errands for a title company; a science major cleans a lab; a senior student works in a drafting office, and is kept on and trained into a job that pays him nine years later, a substantial salary.

Wherever YES is established, it cuts down crime and delinquency by reducing the number of idle teenagers. Though getting jobs for those who need them receives main emphasis, the group inevitably helps disturbed young people, too, and so providing welfare is a stated aim. But the main benefit is to keep kids in school. Many youngsters are persuaded to remain in school because they discover through a YES job that the business world isn't easy or glamorous and a diploma is indispensable. Meanwhile, jobs that bring extra cash for books, clothes, or family needs take the edge off their impatience.

Karin Stallcup, now living on a South Dakota ranch as Mrs. William Ullman, is a bit awed by how far her idea has traveled. She describes her ranch life "as it was in early America. I can't help contrasting this with the way the city youngster is sheltered from the world. It is a pity that many young persons go through 12 to 16 years of education before starting on their vocations. Many find out too late that they are not suited for, or interested in, the field they've picked."

To avoid such mistakes, YES managers scout for jobs every day—phoning, speaking, pleading against the skepticism of potential employers, and battling at times the kids' own inexperience. More progress will come when, in Karin's words, "industry realizes more fully how much a teenager has to offer and makes a place for him." ●

THERE are no reliable statistics on drop-outs, because many who stay in school until graduation have dropped out in all but the physical sense.—*Earl C. Kelley*, Wayne State University.

This Is Number Five

Controversies about Teaching Reading

ARTHUR I. GATES

In School and Society

A REVIEW of the history of teaching reading shows a series of periods, each leading to a climax of controversy.

Probably the first controversy was started by Comenius in 1657 with publication of his *Orbis Pictus*. For several centuries preceding Comenius, the "alphabet method" was used almost universally by professional teachers.

In the "world of pictures," Comenius presented words in phrases or short sentences accompanied by illustrations. He was recommending, therefore, a "word recognition" method. Despite the fact that *Orbis Pictus* was the most popular textbook for more than a century, the letter method continued to be used widely. It was challenged from time to time, notably by Samuel Worchester, nearly two centuries later.

In the preface of a book for beginners published in 1828, Worchester states, "It is not, perhaps, very important that a child should know the letters before it begins to read. It may learn first to read the words by seeing them, hearing them pronounced, and having their meanings illustrated; and afterwards it may learn to analyze them or name the letters of which they are composed."

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Soon after, Horace Mann scathingly denounced the *"pee-you-tee-put"* way of teaching reading and advocated the word method.

For two centuries preceding Worchester's primer, it was suggested occasionally that the sounds rather than the names of letters be taught as the basis of recognizing and pronouncing words. The origin of the second controversy can be identified with the series of readers based on this "phonic" procedure, which began to appear as early as 1870.

Letter sounding seemed to work better than letter naming. During this period the McGuffey readers ruled the land. The readers presented material that was complex and difficult for children; the method was phonic. With this support, the phonic method became firmly entrenched by 1890.

Related to the advent of the phonic readers was the appearance of psychology as a scientific enterprise. The psychologists, having certain ideas about word perception initiated an array of studies of reading. Leaders of the new group of investigators began to take a hard look at the methods of teaching reading in use in schools around 1900.

The impact of the various studies was felt keenly but most of the recommended changes were so drastic that public schools were reluctant to adopt them. As time went on, numerous investigations began to suggest alternatives. They had taken fairly clear form by 1925.

In the patterns developed during the 1920's, the first step was to help the child do what he most wanted to do—read words he encountered on street signs, in stores, in magazines, etc. It was found that with a bit of help the normal child can learn to read a number of these words readily without phonics.

Easy, carefully graded materials were provided for a time to help the youngster pick up enough words quickly to read a variety of materials. The most significant change made at this time was to add workbooks or study books to the basal reader. The new workbooks (they were an early form of "programing") became the backbone of the new program.

The team of study books and readers was designed to teach reading, not literature, science, or any other subject. The program was designed to require only a fraction of the total time devoted to reading. The major activity was wide reading of all kinds of materials, including various "work-types."

Although the basal program materials were designed to develop as far as possible the abilities needed to read well, they were insufficient. The teacher had to provide additional help. Once the youngsters started to read, the teacher began to teach a variety of word-recognition and word-study techniques believed to be useful. She taught the names and sounds of the letters and various phonograms, syllables, and other aspects of phonics, the use of prefixes, suffixes, and other "structural" features of words and ways of attacking unfamiliar words. In brief, the pupil was given not a single device, phonics, but a kit of tools, including phonics, with which to work.

This brief sketch of reading controversies has mentioned four—the Comenius controversy of three centuries ago; a second developing a century ago; a third at the turn of the present century; and a fourth growing out of changes proposed around 1925. A fifth is now underway.

A FIFTH CONTROVERSY

To read only certain recent widely publicized books, one might assume that there is only one important issue under discussion. Rudolf Flesch writes that all that is needed is to teach "phonics as it was taught in this country some 30 years ago . . . phonics taught to the child letter by letter and sound by sound until he knows it—and when he knows it, he knows how to read."

Most psychologists and educators

who have worked most vigorously in this field during the last century disagree with the above statement. This is not to say that phonics should not be taught and taught well—as it is taught in all but a few schools today. There are controversies concerning when and how to introduce phonics, what system to use, and how long and how throughly to teach it. New phonic systems are being developed by scholars in the field of linguistics and new suggestions for teaching are appearing from many other sources. They merit study.

Other proposals of recent years include one suggesting that a return to the heavy, complex basal readers of literary classics, supported by intensive drill in phonics which were most widely used in 1900 and later. Observations of scholars and results of studies make one skeptical of this suggestion. Annoyance and frustration were frequent results of this policy. The wealth of good reading material now available makes the wide reading policy, supported by systematic and thorough instruction in skills, seem even more sensible now than in 1900.

INDIVIDUALIZED READING

Another recent suggestion is elimination of most or all of the fixed-in-advanced devices such as basal books, phonic systems, and practice materials and reliance on individualized instruction by the teacher. This policy is a result of the belief that the vital factor is the ability of the teacher to diagnose each child's abilities, interests, and needs and to tailor a program in light of them.

This "individualized reading" approach was regarded favorably by Hall, Dewey, Huey, and others in 1900 and has been used in a few schools ever since. Questions raised about this policy concern practice not theory. Can the typical teacher become sufficiently expert and find enough time to conduct such a program? A number of persons believe that with the wealth of reading materials available today she should be able to do so. Others are doubtful, especially the proponents of another suggestion.

B. F. Skinner and several other psychologists believe learning can be greatly facilitated by reducing each activity to a series of minute steps. The teaching, "programed" in a sequence of units, is designed to insure learning the right responses and avoiding the wrong elements of learning. Such a program may be largely selfteaching.

Skinner and others contend that a major fault of current teaching is that it proceeds by steps so large and imprecise that a learner can come a cropper at any point. Even the shrewdest teacher would be unable to detect these little slips. The history of "remedial reading" and use of earlier forms of practice manuals support this contention.

Most persons who have studied reading instruction extensively agree that the ability of the teacher is of greatest importance. This is the basic contention of "individualized reading" advocates. Skinner maintains that "programing" will help the teacher to become more expert and will enable her to give more time to individual children.

The basal reader-workbook programs in use today can be enlarged and "programed" to be much more useful to the teacher, but they cannot replace her. A Harvard group, following a careful study, recommended better preparation of reading teachers as a step of first importance.

The field of educational technology does hold some promise. Ways of using sound motion pictures and television to demonstrate in slow motion effective ways of tackling unfamiliar words, methods of rapid reading and skimming, and other skills have not been fully explored. These devices can make the techniques of the master teacher available in every classroom. The meagerness and difficulty of materials and methods in 1900 led many scholars to recommend postponing beginning reading until the seventh year or later. The abundance of possibilities today has led several persons to suggest an age of five or earlier as the ideal time for many children.

The most promising ways to improve reading instruction in the future seem to be to increase the quantity and quality of "programed" material for developing word-recognition skill and the many specialized and subtle types of reading abilities needed at all educational levels; to find more effective ways of using mechanical aids and electronic devices; to provide means of increasing the insight and skill of teachers; and to make available more time for "individualized" instruction.

The current danger is that improvements along these lines will be so unrelated as to result in a hodgepodge of competitive devices. It is important, therefore, to organize an over-all program of teaching in which each procedure is effectively coordinated with others. ●

"Auntie Mame" Would Approve

THE Bureau of Independent Publishers and Distributors, a nonprofit trade association, recently compiled a list of nearly 2,500 paperback books suitable for junior-high and senior-high students. The books of 23 publishers were approved by a joint committee made up of representatives from the American Association of School Librarians, the American Library Association, and the NEA. It is interesting to note that there are only 35 books listed under the heading Humor and Cartoons, but 93 are listed under Science Fiction. It is even more interesting to note that *Auntie Mame* is one of those listed under Science Fiction!—From *The Christian Science Monitor.*

Problems Concerning Data-Processing Machines

Automation: How Much and How Soon?

JAMES W. COLMEY

In The Nation's Schools

James W. Colmey is Bursar and Associate Professor of Education, George Peabody College for Teachers, Nashville, Tennessee. Reported from The Nation's Schools, *LXX (October 1962), 66–68.*

DURING the careers of most superintendents and business managers, a complete evolution from manual to automatic bookkeeping has taken place. For a long time the installing of bookkeeping machines was the traditional problem (and still is in many places). But even before bookkeeping machines could be installed in school systems throughout the country, they have been outdated functionally by semiautomatic and automatic mass-data machines.

The larger systems in the country are finding it necessary to use these machines to keep pace with state and federal reporting and to have comparable statistical advantages with other school systems. I would not try to predict the innumerable uses and the innovations of these machines, but certainly we are on the threshold of having a local, state, and federal system of processing mass data that promises a greater quantity and quality of research and statistical data.

The greatest fear in the installation of new mass-data equipment is the old fear—the fear of change. There are also practical concerns expressed by educators that are justified in some situations but are not valid in this case.

First, educators express concern that individual freedom to teach will be affected. Actually, using machines for statistical test scoring and accounting purposes is no reason for the teaching program to be forced into conformity. Data processing faces the traditional requirement of reporting in a manner that gives validity to necessary comparisons. Competent statistical methods should not affect functional processes.

Another concern, primarily of business managers and accountants, is that the "hard copy" generally administered in traditional accounting systems is sometimes lacking. But as long as auditors can check an accounting system through various reconciliation systems, much unnecessary paper work in accounting can be eliminated.

Some educators also believe machine systems are dangerous to the extent that they can become erratic in operation, and numerous errors may occur, throwing the school system into havoc. These dangers are real, but all may be overcome by verifying all the work done.

The following methods of verifying mass data will assure accuracy: visual recheck of key punching; a second operator with a key verifier to verify key punching; reconciliation systems to test machines against mechanical breakdown; reconciliation systems to crosscheck input; and test runs of programs.

Research always should precede actual adoption of a system. Any superficial investigation, such as what machine to use and whether to buy or rent the equipment, can be dangerous. The approach that must be taken is to determine what a mass data-processing system can do for your school system.

The next step is to determine whether to use a service bureau, to rent equipment, or to buy. Because equipment is changing so rapidly, and because school systems without experience can rarely visualize to what extent they will use the equipment and what type of equipment is best for them, it is best to rent equipment initially. Once the system is established, school systems may benefit by purchasing machines.

Smaller school systems may find that a service bureau is best. Although there are many successful operations, the administrator must recognize that effectiveness of service bureaus may be reduced by problems involving communication, distance, changes, or complex instruction. However, the service bureaus, or nearby cooperating businesses having mass-data equipment, are excellent sources for handling a large single job, for relieving peak loads, or for helping during initial installation.

When it is deemed advisable to adopt a mass-data program, a man trained in the problems and use of the equipment should be employed. He can be a consultant or he can be a person employed permanently with responsibility for the program. Both are desirable.

RECOMMENDATIONS

Here are some recommendations derived from the experience of others in adoption of mass-data systems:

Structure in simple steps, in regular sequence, in a careful plan, and with complete instructions. You must follow a "yes-no", "on-off" system.

Allow sufficient time for card preparation, as the machine card determines the success or failure of your system. Card information and design must be in a form that machines can handle and that will provide for clerical efficiency.

Hold planning periods with all personnel affected by the mass data system or those that could reasonably use this system. At this stage is the best time to orient personnel to the system and to introduce fundamentals.

Put a "program" into the machine. This may be done by the administrator working with a high-caliber tabulating operator. If not, the "program man" must be a policy man.

The heart of any mass-data program is the "tab room," filled with heavy, noisy equipment. It may contain this equipment: key punch, verifier, sorter, collator, interpreter, reproducer, summary punch, accounting machine, and, in large installations, a computer.

In the physical arrangement of the equipment, the tabulating machine is usually centrally located, with the other machines surrounding it. Care must be taken to allow sufficient space, adequate electrical outlets, and temperature control. The noise and weight must be kept in mind while planning, and a separate room structurally capable of supporting the equipment is recommended.

The Memphis, Tennessee, school system is a good example of a large city system using machine mass-data processing. Student attendance, accounting, payroll, research, test scoring, and numerous other machine programs are processed.

To walk into the machine room, such as the one at Memphis, and envision what is being done with the equipment is an experience that may leave an uninitiated person frightened. Actually, the system can be adopted with a minimum of transitional confusion if the following requisites are fulfilled:

Research should precede installation.

There must be acceptance of data systems by users.

A person trained in the use of this equipment should be available to the school system prior to the installation. Preferably he should be the man who will be responsible for the equipment.

There should be careful development of a basic usable master card. Carefully devised systems of verification should be planned and used to prevent errors.

It is inevitable that new mass-data machines will have a tremendous effect on education in the years ahead. Out of automation will come problems but there will also be much enlightenment. Automation is a "must" if education is to keep pace with other socio-economic developments in the nation ●

Keep Him Away from the Machines!

THE teacher in a little country school was at the blackboard explaining arithmetic problems and was delighted to see the tall, gangling lad, her dullest pupil, was watching intensely. Her happy thought was that, at last, he was beginning to understand. So, when she had finished, she said to him: "You were so interested, Cicero, that I'm certain you want to ask more questions."

"Yas'm," drawled Cicero, "I got one to ask—where do them numbers go when you rub 'em off the board?"—*Texas Outlook.*

Opinions Differ on

Teaching Modern Mathematics

HOWARD F. FEHR

and

SAUNDERS MAC LANE

In NEA Journal

A Great Step Forward, *says Fehr*

In 1952, the University of Illinois Committee on School Mathematics, looking critically at the high-school mathematics program, found much that was unsatisfactory.

Along with other groups, the committee noted that some content was no longer useful. Textbooks lacked clarity of expression. Concepts that could have put the program in harmony with modern developments were missing.

The Commission on Mathematics, appointed in 1955 by the College Entrance Examination Board, proposed in its 1959 report a program of mathematical education in harmony with present-day scientific and technological culture. As a result of these and other groups—including the School Mathematics Study Group (SMSG), which was organized in 1958 with National Science Foundation Aid—there has been a revolution in secondary-school mathematics in this country.

Mathematics for grades seven and eight is being transformed from a review of computational arithmetic and business arithmetic to a study of mathematics, principally number systems and intuitive geometry. Grade nine algebra is becoming a more unified study of number systems, variables, equations, and functions. Grade 11 intermediate mathematics is a restudy of the real number system from a more structured and abstract point of view. The course combines algebra with trigonometry and coordinate geometry, extending this study to include complex numbers and vectors. The senior-year program offers a study of functions, probability, and matrices for those with deeper interest.

The geometry program is still in a state of flux. An SMSG geometry

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fortified Euclid's presentation with a rule and protractor postulate and appears to be the best high-school geometry at present. Retention of this type of geometry is justified by the role it plays in developing deductive thinking and in exhibiting the nature of a mathematical structure.

Most teachers who have used the new materials are enthusiastic and say they will never return to the old. Students enjoy the work and show far more understanding. No one in the field of pure or applied mathematics who carefully examines the new materials and compares them with 1950 materials can possibly deny that mathematics has been improved. He may disagree with some aspects, but he must admit there has been a giant step forward.

The first step in reform is to plot a correct and appropriate course. This has been done. I think several additional steps are necessary. Euclid's geometry is a complex, outmoded approach to a study of space and leads to a dead end. Much of it should be moved to junior-high school and studied in a less formal way. Euclidean space—at the heart of all modern mathematics—can then be studied in the senior-high school by algebraic methods (analytic geometry and vectors). This is the efficient way to study space of 1,2,3, or *n* dimensions and to build the foundation for subsequent use of geometry in pure and applied mathematics.

One aspect of modern mathematics is its unity—the separate branches can be unified by means of the study of coordinate geometry and linear algebra. The classical disciplines—arithmetic, algebra, geometry, analysis—are still considered separate study units. Such compartmentalization must disappear.

We cannot afford a program for the intellectual elite only. The level of mathematical abstractness and rigor must be kept within the grasp of a large segment of high-school youth. The question is not one of different mathematics for different intellects and interests, but a question of the amount, depth, and rate of progress.

Has Been Oversold, *says Mac Lane*

School mathematics has changed suddenly. It used to be taught in a fixed pattern and had the same meanings for young and old. Now the schools are full of "modern" mathematics. When junior asks dad for help on a problem, it turns out to be a problem in Boolean algebra—and what sense can dad make of $x + x = x$?

Why the need for change? Over the years, with no new content, school mathematics gradually degenerated because of an exclusive concern for teaching methods. Arithmetic was viewed as a mass of number facts and not as a meaningful structure. Algebra was rote manipulation with no suspicion that there were reasons for the rules. Geometry, with little use of space perception, became a shrinking list of memorized theorems. Occasional voices calling for some modest reform were ignored.

But in the past five years, vital reforms have been made in many schools. Intuitive geometry appears in the early grades, Euclidean geometry has been revised, and newer ideas from abstract algebra have restored its logical structure. Basic mathematical ideas have been introduced early, where they belong. The notion of a set used to appear late in college courses; now it is taught in the fourth grade and is used to clarify other ideas.

Many of the reforms are good, but any crash program is likely to overshoot. This one is no exception. Sets have been overdone. The fashion now is to say "solution set of an open sentence" instead of "roots of an equation"—but the idea is the same. Other basic ideas are neglected. For example, too many reformers define "function" in terms of "set," but the reverse is just as possible and a good deal more modern.

Boolean algebra, refreshingly different and hence good fun and enriching, gets more than its due. But there are many such sidelines (matrices, for one). Teachers who neglect the basic, ordinary algebra for this one are deep in a Boolean binge and should sober up.

Clear thinking is needed—and has been rightly emphasized in the new mathematics program. A formulation of the rules of clear thinking by means of symbolic logic is used in various advanced and technical studies. But introducing formal rules of symbolic logic below the college level, where some misguided enthusiasts have put them, is against the weight of mathematical judgment that clarity in thought is taught by examples and not by formality. This formality can tragically mislead students—and even a few mature social scientists who conclude that a machine thinks just because it can solve a few logical trivialities.

It is not clear why, but in the reform, abstract mathematics comes out better than applied mathematics. Perhaps the abstractions are easier for a youngster than applications requiring experience, or perhaps too many off-beat applications are used. In any case, more reform is needed here.

The whole reform is much too centralized. Instead of one School Mathematics Study Group, we should have several smaller ones, lest the future be as rigid as the past. This error is one of Science Foundation policy; it should be corrected at once.

The "modern" aspect of current programs has also been oversold. Formerly, all school mathematics embodied ideas at least 200 years old. Now, at long last, a few 50-year-old ideas have reached the school. The trouble is, every author reaches for that catchy title, "Modern Mathematics," often for a superficial book covering just bits of Boolean algebra and logic. These bits form a miniscule piece of real modern mathematics. Let us keep the reform in balance.

Is Its Importance Disregarded?

The Printed Word in Learning a Foreign Language

VINCENZO CIOFARRI

In The Modern Language Journal

THE following is intended as an objective analysis of processes involved in language learning to determine the function of the printed word. I say language "learning" not "teaching," because the distinction is essential. So much emphasis has been placed on the importance of the spoken word that we tend to disregard the value of the written word.

Since the faculty of understanding sounds and reproducing them constitutes the essence of language, the first step is mastery of the spoken word. Now, at what point does the written symbol reinforce the spoken sound? At what point does the written word carry meaning along with the spoken word, and at what point does the written word begin the function of carrying meaning independently? What part does the written word play in acquisition of language?

Certainly, language is first of all speaking, and only secondarily writing. The written symbol is only an inaccurate representation of sound. But there is a failure at times to realize that accurate sound is not necessarily accurate language. Sound can be as misleading as the written symbol in communicating ideas. Moreover, if language were confined to the spoken word, we would have a world of illiterates. What else do we call people who do not know how to read or write?

Vincenzo Ciofarri is Modern Language Editor, D. C. Heath and Company. Reported from The Modern Language Journal, *XLVI (November 1962), 312–14.*

The written word has immediate as well as ultimate value in language learning. First, written symbols are dependable reminders of sound. Through controlled imitation, our vocal apparatus is able to reproduce sounds of a new language. By repeated stimuli, our vocal apparatus is able to reproduce those sounds as reflex action. However, as we acquire more and more sounds, the reflex action spreads over a wider range and begins to weaken in spots. At that stage, the written symbol serves to recreate the conditions which produced the correct sounds in the first instance.

The written symbol is permanent, and the spoken sound is transitory. Since language learning is a cumulative process, it is quite important to recreate linguistic experience when the stimulus is absent. At present, even with the electronic devices at our disposal, we cannot utilize sound as a permanent record—sound cannot be used for a ready reference. Furthermore, even if we had a recorded dictionary, there would be problems of finding a certain word needed for a certain occasion. How could we glance at hundreds for the reminder of the correct choice? Can our reflexes store all the new stimuli and make them available at our beck and call? Without the written symbol, the learning of a language outside its native atmosphere becomes a practical impossibility.

The written symbol first comes into play as a reminder of sound, a reinforcement for language already acquired. The human mind does have a tendency to drop from its consciousness elements not in constant use—if it did not our minds would be crammed with useless information, such as yesterday's grocery list. It is natural that our minds should tend to drop words and expressions previously learned when new ones come into consciousness. But a language cannot be built that way. The original blocks have to be kept firmly in place to have a linguistic structure. Constant ready reference to previously learned language is essential to language learning. Such reference can be furnished only by the written word.

The written word is indispensable even in a pure audio-lingual approach. In the classroom or laboratory the student practices patterns of a new language. To produce mastery, pattern drills must be confined to one structure at a time. A student would be very old by the time he mastered enough patterns. Success can be achieved only by substituting new items. A storehouse of language on which the student can draw substitutions is needed. The printed word is the only practical, inexhaustible supply. Training in the proper utilization of printed words is essential to learning.

A student really begins to master a language when he has learned to increase his skill by himself. All who have mastered a foreign language realize that most learning is done after formal training. Language instruction of the past has been unsuccessful because learning stopped when it was ready to begin. Language teaching of the future needs to set as its goal the ability to acquire language after the student leaves the classroom. The only linguistic atmosphere always available, which depends entirely on the learner, is the supply of printed material. Proper utilization of that material is the only dependable source on which to base complete learning of a new language.

Finally, it should not be forgotten that study of foreign languages derives value from its intellectual appeal. I am not minimizing the importance of understanding other people through the spoken word. However, we must realize that most of our understanding comes through the printed word, which not only conveys the best thinking of other people but extends to all civilized nations, present and past. ●

Should Each Subject Area Be Accredited?

What Accreditation Can and Cannot Do

ALBERT E. MEDER, JR.

In Science Education

Albert E. Meder, Jr., is Vice-Provost and Dean, Rutgers University, New Brunswick, New Jersey. Reported from Science Education, *XLVI (October 1962), 310–16.*

ALMOST inevitably proponents of curricular revision seek assistance from accrediting agencies in securing adoption of programs they advocate. Associations of science and mathematics teachers considered the possibility of having their standards adopted by the accrediting agencies. Most recently the American Political Science Association raised the question of whether colleges should not be accredited in political science as they are now in chemistry, through the American Chemical Society.

My answer is "No," in every case. We ought not to have any more specific accreditation than we now have.

Consider that if every one of the 30 odd departments included by a typical college or university of liberal arts, or if every one of the fields for which a teacher education institution prepares students, or if programs leading to every one of the various certificates granted in any of the 50 states, were to be separately accredited, as distinguished entities, the situation would be intolerable.

Indeed, the present situation is so nearly intolerable that recently the colleges and universities organized the National Commission on Accreditation to serve in effect as an accrediting agency for accrediting agencies, to determine which accrediting agencies should be recognized as offering a valid, desirable, or necessary service. More than 1200 colleges became members of the commission.

Another important consideration is that curriculum improvement groups are not the only agencies desiring to make use of accreditation. Every time a problem of higher education makes the newspapers the public seems to think that the accrediting agency should move in. Whether it be a dishonest basketball player involved with gamblers or a president losing his job, somebody thinks the accrediting agency ought to do something about it.

There may be circumstances in which this should be done. But the accrediting agency is not a policeman with a big stick to handle every infraction that appears. Its basic concern is the integrity of the institution. This does not condone anything about a basketball scandal; but such a situation hardly warrants action with respect to accrediting unless it is shown to be a part of a pattern of deliberate deceit and hypocrisy by the college. And, although it may be hard to admit, some presidents do deserve to be fired. But it is hardly the business of an accrediting agency to tell the Board of Trustees how to run its affairs, even if in its opinion an error of judgment has been made. The accrediting agency should make certain initially that the Board of Trustees understands its function and that it has a kind of organization that will enable the institution to operate; only if there are grave abuses should the agency step in.

All this does not mean that accrediting agencies cannot be of assistance to a group interested in improving a specific curriculum area, such as science or mathematics. It does not mean that the agencies have no interest in such matters. There is a great deal the accrediting agencies can do if properly approached. The approach, however, is not to say, here is an acceptable accreditable curriculum for the preparation of science teachers and any institution that does not follow this pattern should be denied accreditation.

WHAT CAN BE DONE?

What can be done? Keep in mind that the accrediting agencies' main purpose is to know whether an institution understands its objectives, has a program calculated to carry out these objectives, and can give evidence of success in attaining them. It is a perfectly proper thing for an accrediting agency to ask whether those in any institution responsible for the preparation of science teachers, say, are in touch with the latest recommendations and the latest developments. If a professor or a dean responsible for preparation of science teachers knows little or nothing of the ferment that has been going on during the last few years with respect to secondary-school courses and college curriculums, then, except by chance, his program cannot be acceptable. The accrediting agency should look into this.

How can an accrediting agency investigate? Only through members of visiting teams. These team members are chosen by the officers, particularly the executive secretary, of the agency. Therefore, one important thing a group interested in improving a specific curriculum area, such as science, can do to bring the influence of accrediting agencies to bear on promotion of their interests is to provide the agencies with a panel of knowledgeable people in the field. The agency would be delighted to know competent people in institutions in its territory who could be invited to serve on teams.

Another method is publicity—through the issuance of reports and recommendations. To ask for assurance that attention will be given to these recommendations is in my judgment selling higher education short by merely asking the question. Most presidents, deans, department heads, and professors do want to keep up with developments; they do want to look at recommendations made by responsible professional groups; they do want to implement them if it appears warranted.

But the institution is the agency that decides what its program is going to do. The accrediting agency cannot tell a faculty what it must teach. The curriculum and the courses are the responsibility of the faculty and the institution. An accrediting agency can, however, ask whether an institution has considered certain practices. If a college is giving old-fashioned courses, the agency can ask why it has not changed them.

As chairman or member of a visiting team, I can ask some very searching questions about mathematics programs in some institutions that are teaching curriculums outdated by 50 or 60 years. I can't tell them what they must do. I can inquire why they do what they are doing or ask if they have considered doing what some other institution is doing.

One other practice of accrediting agencies needs mentioning. When we find a really bad situation we don't go to the newspapers. We go to the president, describe the situation we have found, tell him that under such a situation accreditation cannot be reaffirmed. We then give the institution a reasonable time, normally two years, to correct matters, and tell the president that if in that time there has not been shown genuine and marked improvement, accreditation will be revoked. We do this without publicity; have done it more times than even the Association's membership has any idea.

I think that both the accrediting agency and the association of teachers of a specific subject area, such as science, have the same basic purpose: that institutions preparing teachers—science teachers, in this case—should have the best possible program for preparing science teachers that they can support. If an institution lacks adequate resources to do the job, the resources should be acquired or the program should be dropped.

If groups such as associations of teachers of specific subject areas can set forth the norms for excellence, indicate what books should be in the library, what equipment should be in the laboratories, what point of view is necessary to prepare beginning teachers to move into the present day current of education in the secondary or elementary school, then we can work together to achieve excellence.

But it is not the function of an accrediting agency to deal with the specific content of specific courses, or the specific courses included in a specific curriculum. If the institution has integrity and academic know-how, the course will either include the right subjects or can be developed to include them as publicity is given to the need, as new recommendations are made, as emphasis is placed in new directions. If the institution doesn't have integrity, the accrediting agency knows how to deal with it.

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Music as an Academic Subject

CARLETON SPRAGUE SMITH

In Music Educators Journal

MUSIC is recognized as an *activity* in schools and colleges today, and yet it is not always regarded or accepted as an academic discipline.

The question of music as an academic subject is an old one. The Greeks concluded that it was an integral part of education and so did the schoolmen of the Middle Ages. During the Reformation it was also rated an academic subject, with both the theory and practice of the art being subjects for daily instruction.

In this country, the Singing School movement was important from 1770 on, but it was not until Lowell Mason introduced singing into the public schools of Boston in 1830 that music became a required exercise in the educational system.

More than 15 years ago, the Harvard Report on *General Education in a Free Society* doubted whether music "should be required of students in secondary schools." It argued that music was not an academic subject.

This point of view is not shared by many thoughtful people. Music is an integral part of human culture, and many of its techniques are parallel with those of the other humanities. It is not merely a "pleasant pastime" or a background for conversation; Western music is a language with a literature which for centuries has been closely tied up with our habits and customs, indeed our civilization. It cannot be termed the private speech of a small group but rather "a social phenomenon of universal significance."

Carleton Sprague Smith, a musicologist, is a faculty member, Department of History, New York University, New York City. Reported from Music Educators Journal, *official magazine of the Music Educators National Conference, IL (September-October 1962), 31–34.*

Where does music fit in the school day? Since music is both a literature and an adjunct to other disciplines, it is my opinion that a first task is to correlate or integrate music into the curriculum. For example, why should not the mathematical side of music be taught by the mathematics teacher? There are many aspects of music in which mathematics is essential: theory, acoustics, recording, etc. We should get away from the idea that all knowledge must be compartmentalized. After all, the school is supposed to train the mind and the faculties. The theory of music stretches the mind and prepares one for many things besides composition.

Furthermore, music does not exist in a vacuum. It is probably more connected with the history of other disciplines than any other subject. People have sung, danced, and played from time immemorial. Music is intimately bound up with our civilization.

Listening to or performing music associated with history makes the past more vivid. What did the Crusaders sing, the wandering students of the Middle Ages, the peasants who revolted in the sixteenth century, or the Parisians during the French Revolution? Surely our own Civil War is brought to life again through its songs. But how often does the history teacher make such references?

RELATE IT TO LIFE

The ignorance of our students regarding the significance and place of music in society offers a great challenge. Our students do not generally relate it to life. Too often it is forgotten that music is a sound with a purpose; too often it is treated as mere sound.

Just as music can be integrated into the history courses through use of records and live performances, so it can be integrated into the other disciplines. In the language field, beginning with English, the opportunity is great.

To study the Elizabethan lyric without referring to the musical settings of the time is to give an incomplete picture. Sir Walter Raleigh is much closer to us if we hear one of his poems sung. Ronsard's name was synonymous with finely wrought polyphonic music. Should not the French class know this?

The same idea can be followed in German, Spanish, Italian, and Latin. To help students learn classical Latin with its intricate rhythmic patterns, odes were set by composers from 1500 on. There are hundreds of compositions which could be of more than academic interest if they were revived. Latin texts still inspire composers who are well known in the concert halls but are strangers to the Latin or history class.

A charge frequently leveled against music educators is that they are more interested in method than content; more interested in sounds and technical results than inherent meaning. The place of music in society and its role in the history of civilization—these things are ignored.

It is true that music teachers must cover a wide range and there is a danger of teaching only a smattering of information and skills. The situation can be remedied by including the theoretical and historical roots of music in the curriculum—by treating music as a scholarly discipline in its broadest sense; by teaching it as an academic subject in our high schools.

I suggest that we weave music into the fabric of the school. Teach students to listen and to think sociologically as well as technically. Get them into the habit of calling for music as often as possible in their activities. Their fellow students can write pieces for birthdays, picnics, parties, and perhaps for commencement.

RESIDENT MUSICOLOGISTS

I also propose that there should be musicologists in residence in our schools, just as there are now composers in a number of cities. Two years ago the Ford Foundation, through the National Music Council, gave grants to a dozen composers to be "in residence" in certain high schools, where they can write works to be sung and played by the students. The resident musicologists, I submit, could help to organize courses in the history of music, but their main task would be to study local needs and integrate the European tradition with that of specific regions in this country. They would make the musical life of the high school more vivid and help develop an interest in our heritage as well as present day creativity. Music must play a greater role in the school and the community. If properly presented, songs can supplement maps and illuminate various regions of a country. It is this excursion into the realm of tone which has many meanings that we are trying to teach.

The response to music varies among students, and therefore we must offer a varied fare. There is the run-of-the-mill boy or girl who likes to sing and dance, and we must ask ourselves: Are these young people given sufficient opportunity to take part in music on a simple level? If they can participate frequently and be taught the art of music as literature and a reflection of times and places, some of them may become what I would term *musically responsible citizens.*

Music is frequently a social art and offers splendid opportunity for teamwork. We should stress the *value* of its study, not the *necessity.* We are apt to overdo formal analysis with the moderately interested child at the expense of establishing for him the relationship of music with the other humanities. Music shares many of their concepts and parallels many of the other arts in its functions.

How are we to change the present pattern of a society where only 2 percent of the population goes to concerts? Why are the people of this country not carried away by music? It can be an exciting esthetic experience, something which is talked about and argued over. That is what we want. We want music to cause reactions, make people think and feel. In a sense, the task is to make a lasting impression on the pupil. Too often he is exposed but not innoculated.

As Nadia Boulanger once said, "Students must be shown the place of music in our whole civilization as well as civilization in terms of music." That is what music as an academic discipline should do. ●

Effect on Achievement

Small-Group vs. Teacher-Led Discussions

WILLIAM J. GNAGEY

In The Journal of Educational Research

EVER since 1952, when J. Levine and J. Butler reported that group discussion was more effective in changing behavior than the lecture method, there has been some doubt as to the necessity and efficiency of the teacher's participation in various classroom activities carried on in the name of learning.

If, as A. Hare concluded in "A Study of Interaction and Consensus in Different Sized Groups," there is an increase in participation in small groups, the efficiency of a teacher-led discussion involving more than six or eight students may be questioned. If the teacher were to withdraw at intervals in favor of small class divisions, his absence might be more of an aid to learning than his presence.

However, some teachers and many students feel that unteachered small groups merely share ignorance and waste time.

There are two major issues: Is the teacher's presence ever indispensable for maximum achievement in such sessions? What does the teacher's presence do to the student's perception of the value of the course?

Here is a report on a study of two college sophomore classes in educational psychology. One group was taught by a small-group discussion method (SGD); the other in a conventional teacher-led class discussion (TLD). In addition to comparing achievement of the two classes, the investigation attempted to measure any differences in the students' perception of the practicality, interestingness, and understandability of the course.

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The teacher-led discussion was carried on as follows: the instructor begins by inviting questions from the students about the assigned material. Study sheets, containing essay questions and a list of terms considered important by the instructor, have been distributed previously.

When a student asks a question, the instructor refers it to the class. If no student volunteers an answer the instructor answers the question and asks the student if the answer is satisfactory. If not, the instructor pursues the answer until the student claims understanding.

When a correct answer is volunteered, the instructor indicates assent. If an incorrect answer is volunteered, the instructor refers it to the class, asking, "Do you all agree?" Answers are pursued as before until the questioner claims understanding.

The small group discussion was carried out by electing a chairman to lead a group of 9 or 10 students. With the help of study sheets they proceed more or less informally to help each other gain understanding of the assigned material. The instructor is available in the room for consultation with any group needing his services, but is occupied with his own work in the interims.

No significant differences were found between the two groups with respect to achievement as measured by the examinations. It could be concluded that the instructor effected no appreciable facilitation of academic achievement. Certainly, no generalization could be attempted, but the results should challenge some preconceived notions about the instructor's function as a discussion leader.

The picture is different, however, concerning the students' perception of the course's value. The students' evaluation at the end of the eighth week revealed that the TLD group, to a significant degree, thought that the course was more practical than did the SGD group. The TLG also rated the course as far more understandable than did the SGD group. A weak tendency for the TLD group to rate the course as more interesting than the SGD group was not significant.

The personality, delivery, and general attitude of the experimental instructor would make us cautious about generalizing these findings. But we were totally unprepared for results which forced us to conclude that student perception of the value of the course did not parallel achievement in the course.

Another possible implication is that, regardless of whether the presence of an instructor increases the achievement level of a group, he might be indispensable to morale, and thereby be useful for that reason.

It must also be admitted that the SGD class may have learned some valuable behaviors that were not measured in this study. Such things as selfreliance, social skills, communication skills, etc., could very well tip the scales in favor of the SGD method if these are proper objectives for a course in educational psychology.

Perhaps the major contributions that this study could make would be a vigorous stimulation of college teachers to test some of their favorite procedures to determine if they are using time most efficiently. ●

THE mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires.—*William Arthur Ward.*

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

The New Commissioner.—Francis Keppel, the sixteenth U.S. Commissioner of Education, needs no introduction to the policymakers of American education, nor to the key figures in the Kennedy Administration, including the President himself. At 46, he has both the requisite seasoning and sufficient vigor to move the U.S. Office of Education from the periphery to the inner circle of the power structure of American education.

As is widely known, he turned down the job when it was offered at the opening of the Kennedy Administration, some say because he could not be assured sufficient latitude while serving under HEW Secretary Abraham A. Ribicoff, an autocratic administator. Former Secretary Ribicoff, who is the new U.S. Senator from Connecticut, then took 15 months to find a Commissioner who would, in his phrase, "handle the education while I handle the politics." This division of labor was notably unsuccessful. The President's education legislation was not enacted, and Sterling M. McMurrin soon resigned in frustration, blaming his troubles on the NEA and lack of a Cabinet seat.

Now the President has taken a new tack. Commissioner Keppel was not Secretary Celebrezze's personal choice; for the first time in decades, the Presidential appointment of a U.S. Commissioner of Education has been more than a mere forwarding by the White House to the Senate of the name supplied by the HEW Department or some other agency. An experienced politician, Secretary Celebrezze has stepped out of the way of his new subordinate, who has his own close ties with the President and key White House officials.

One common bond, of course, is Harvard, where Francis Keppel has been dean of the Graduate School of Education since 1948. It was natural for the President to ask Keppel to join his pre-inaugural "task force" developing education recommendations. McGeorge Bundy, who resigned as undergraduate dean at Harvard to become the President's special assistant for national security affairs, was ubiquitous when Keppel was sworn in at the White House, as was another erstwhile Harvard colleague now on the White House staff, Arthur M. Schlesinger, Jr. Only illness prevented Justice Felix Frankfurter, who was dean of the Harvard Law School before his appointment to the Supreme Court, from administering the oath of office, as Keppel had requested.

The White House ceremony was symbolic indeed of the unique status accorded to Commissioner Keppel. No one at the White House or the

USOE can recall or produce any record of the installation of any previous U.S. Commissioner of Education at a White House ceremony attended by the President himself. Even before he was sworn in, at their request, Keppel visited several top White House officials, including the Director of the Budget. In contrast, a recent previous Commissioner went to the White House only twice during his stay in Washington, once in the company of the Teacher of the Year.

Curriculum Vita.—Keppel's guests at the White House ceremony included, in addition to the leaders of the major educational organizations in Washington, Dr. John W. Gardner, president of the Carnegie Corporation and an old family friend. The new Commissioner's father, the late Frederick P. Keppel, was himself president of the Carnegie Corporation, as well as dean of Columbia College. His son attributes his manifest skill at fund raising to this early exposure to the world of philanthropy. "I learned at home how to get money out of a foundation executive," he wittily observes.

The new Commissioner has only one earned degree, a Harvard A.B. awarded in 1938, after which he studied sculpture for a year at the American Academy in Rome. From 1939 to 1941, continuing his studies, he served as an assistant dean at Harvard College. From 1941 to 1944, he was in Washington as secretary of the Joint Army-Navy Committee on Welfare and Recreation. Then he joined the Army as a private and rose to a first lieutenancy, returning to civilian life in 1946.

For the next two years, Francis Keppel was assistant to the provost at Harvard. Then President James B. Conant appointed him, at 32, dean of Harvard's Graduate School of Education, which was then not especially outstanding. Subsequently, he also served as a member of the Twentieth International Conference on Public Education at Geneva in 1957, an educational commission for the Nigerian government in 1960, and the Panel on Educational Research and Development of the President's Science Advisory Committee, in which the USOE and the National Science Foundation jointly plan programs.

Commissioner Keppel is a member of the American Academy of Arts and Sciences and Phi Beta Kappa. He was married in 1941 to Edith Moulton Swain. They have two children, Edith Tracy (Mrs. Samuel S. Drury, Jr.) and Susan Moulton. He says his hobbies are dancing, squash, and tennis.

The Way Ahead.—"We have a tendency in this country either to regard education as the cause of all our troubles and the cure for all our ills, or as a collection of rather dull technical issues on how to teach subjects or children," he told his first USOE staff meeting. "It seems hard to believe, but we have even succeeded in having a solemn argument on whether we should teach the subject *or* the child, as if either could be sensibly considered without the other. My own prejudice is that education is a most important part of our society's affairs but obviously not the only important part; that schools and colleges and universities are linked to nearly every other aspect of the society and must be thought about in context; and that a dose of common sense and a dash of humor will keep us from making silly judgments and from taking pompous positions."

After Keppel became dean of Harvard's Graduate School of Education, full-time enrolment more than quadrupled, admissions applications increased tenfold, the faculty tripled in size, and endowment was more than doubled. Some of this growth came naturally, of course, but most is attributed to Keppel's administrative skills.

The USOE, which now has some 1,100 employes and a current annual budget of about $600 million, has also grown greatly in recent years, yet many believe it is still far from its full or proper stature either in American education or the federal government. Those who hold this opinion look to Keppel to expand the USOE and heighten its prestige.

Certainly he did not become Commissioner to preside over a static organization. "I wanted this job," he told a group of educators soon after his appointment was announced. "I expect to be Commissioner of Education as long as the Secretary and the President want me. I'm down here for the duration." The fact that the new Commissioner, unlike many predecessors, would welcome long tenure and seeks no other office should strengthen his hand, in and out of the USOE.

He also has the professional respect and good will of the major educational organizations, based on years of close association. (One of his recent predecessors, on his way to address the AASA, asked a colleague what the initials represented.) "Dean Keppel will receive the full support of the National Education Association in his efforts to secure enactment of that program of national support for public education which the President has rightfully described as the most important item of domestic legislation," William G. Carr, the NEA's executive secretary, stated when the appointment was announced. "The new Commissioner has served the NEA on several important national committees. His knowledge of educational needs and problems provides a firm basis for a successful administration of his office."

Commissioner Keppel will also be helped by his alumni in high places—James E. Allen in Albany, Owen Kiernan in Boston, Calvin Gross in New York City, among others. His wit and grace will win him many friends and doubtless a few enemies in Congress, where the battle for a bigger and/or better Office of Education must finally be won.

In Context.—Rep. Edith Green, a former teacher, believes that the government has proliferated its educational activities and support far too widely throughout the federal establishment. As chairman of a Special Subcommittee of the House Education and Labor Committee, she held several days of well-prepared hearings last month with such officials as the director of the National Institutes of Health, the director of education and training for the Atomic Energy Commission, the deputy assistant secretary of defense for education, and the associate director of the National Science Foundation.

All the federal administrators paid at least lip service to the need for stronger programs of elementary and secondary education. The NIH director, a subordinate of the HEW Secretary, was of course the most explicit in his support of the Administration's education legislation.

The hearings revealed some apparent duplication in the expenditure of $2.7 billion for education; five U.S. agencies are said to be teaching English in Thailand, for example. Centralizing federal educational programs in the USOE hardly seems feasible, however. No matter what a few educators may prefer, the Defense Department will probably continue running schools for its dependents abroad and the AEC and NIH will continue to support training in their respective fields, because Congress wants it that way.

Whether federal research funds tend to build up already strong institutions at the expense of others, whether ample funds for science are distorting the pattern of undergraduate choice, whether faculties are being skewed toward research at the peril of teaching—these are some of the significant questions raised by the Green Subcommittee which will be dealt with in its forthcoming report.

These are also questions which appropriately concern the U.S. Commissioner of Education as he thinks about his job, in his words, "in context." There are others not considered by the Green Subcommittee: How can our middle-class schools reach children and parents who reject their goals? Can the church-state impasse over federal aid be resolved or by-passed? Will we invest enough in our schools to reduce unemployment among the nation's young people?

The job of the new Commissioner is to help achieve a consensus on the answers to such crucial questions of social policy as these. His lasting stature and that of the USOE will depend on the wisdom of the answers and the ways in which they are made manifest in the lives of young Americans, not on the number of associates or dollars Congress is persuaded to grant him. The job thus seems eminently suitable for "an administrative handyman," as Commissioner Keppel calls himself. The job also needs a man who "thinks in terms of centuries," as Frank Keppel claims they all do up at Harvard. ●

Educational News

The Big Ten

ANNUALLY, the Educational Press Association of America commissions the editor-in-chief of Croft Educational Services to list the major educational events of the year. For 1962, Editor Ben Brodinsky chose the following events from the many which occurred during a year in which education was much in the news:

1. *The U.S. Supreme Court ruled that a prayer composed by the New York State Board of Regents for use in classrooms of that state was unconstitutional.*—As a result of the ruling a great national debate continues on the place of religion in the schools.

2. *James H. Meredith, Negro, war veteran, enrolled at the University of Mississippi.*—Despite opposition from state officials and white supremacy groups, bloodshed, and rioting, Meredith was enrolled largely because of the threat of accreditation loss, in the view of many competent observers, rather than because of the use of federal force and legal action.

3. *Sterling M. McMurrin resigned as U.S. Commissioner of Education.*—After a little over a year in office, Mr. McMurrin stated he preferred the teaching of philosophy at the University of Utah to administrative tasks.

4. *Congress defeated aid for colleges and universities.*—Even after passage by both houses of differing versions of an aid-to-higher-education bill, the opposition of the NEA and other educators, as well as some Congressmen, resulted in the bill's failure to gain approval in a conference committee.

5. *A panel of citizens and educators recommended that the vocational-education acts should be modernized and that federal support for vocational education must be more than quadrupled.*—The dropout and unemployment problems among youth, plus the inadequacy of the present vocational-education acts, which date back to 1917, led President Kennedy to appoint the panel, headed by Superintendent Ben Willis of Chicago. The report will result in new proposals on vocational education to go before the new Congress.

6. *Public-school teachers of New York City struck for higher pay.*—Even though it lasted but 24 hours, the strike raised many questions and brought to a head the disagreement between the AFT and the NEA on this and other questions, including the use of sanctions in place of strikes by teachers.

7. *The American Federation of Teachers (AFL-CIO) challenged the National Education Association for the affiliation of America's public-school teachers.*—The success of the AFT in New York City led Walter Reuther to say that the AFL-CIO is "obliged to use its resources to help AFT to get one million teacher union members."

To combat these activities the NEA decided to provide more help to local associations in urban areas and created a special assistant for urban services.

8. *School-board members declared their opposition to general federal aid to education, but approved aid for specialized school-aid programs.*—"Opinionnaires" sent by the National School Boards Association to 90,000 board members throughout the nation disclosed in the responses that some 55 percent opposed general federal aid and some 30 percent thought it was necessary but a strong majority approved federal-aid programs now in existence.

9. *Educational television took a big step forward.*—A new New York City station, a new Congressional act to support educational television, and the authorization by Congress of the FCC to require new sets to have UHF channels highlighted this development.

10. *The Educational Policies Commission called attention to the educational needs of the disadvantaged Americans.*—In a major policy document, *Education and the Disadvantaged American*, the EPC declared that by 1970 half the people who live in our large cities will be ignorant, incompetent, and maladjusted charges of the community unless public education recognizes the problems of Negroes from the rural South; hill whites from the Appalachian uplands; Puerto Ricans; Mexican-Americans; and reservation Indians.

Bill of Rights Teaching

CONCERNED about the public schools lack of attention to a "difficult but basic responsibility" for improving the teaching of the Bill of Rights, Supreme Court Associate Justices William O. Douglas and William J. Brennan recently issued a statement, along with other members of the newly formed National Assembly on Teaching the Principles of the Bill of Rights, calling for an improved program.

"Surveys of secondary-school curriculums leave us in no doubt that education in the principles of a free society is in a backwater, both in terms of the time committed to it, and the care and thought devoted to determining its method of content," the statement said. "Other surveys of student and adult opinion disclose a lamentable ignorance of both the content and history of the Bill of Rights, and a dangerous indifference to its application to current issues." The statement added, however, that this was not solely, or even primarily, the fault of school teachers and administrators, pointing out that schools are an organ of the community and as such reflect the climate and disposition of the citizenry as a whole. The statement continued:

"The root of present shortcomings seems to lie in a fear of controversy. From an educational standpoint, this is especially unfortunate. Nothing is more closely attuned to the educational process than the probing of controversial public questions, for nothing serves better to demonstrate the immediate relation between the classroom and the world outside its walls."

The formation of the National Assembly was sponsored by the American Political Science Association, the Association of American Law Schools, the National Council for the Social Studies, and the Civil Liberties Educational Foundation. Minna Post Peyser of the Civil Liberties Educational Foundation, 200 Park Ave. South, New York, N. Y., has been named executive director of the National Assembly.

Programed-Learning Meeting

A NATIONAL Symposium on Research in Programed Learning and related information activities will be held at NEA Headquarters in Washington, on March 24–26 at which the following topics will be covered: programing techniques, analysis of instructional objectives, research on programing variables, machines and complex teaching systems, reading and related verbal learning, second-language learning, programing in mathematics, in science, and in professional education, standards for the assessment of programed materials, and use of programed learning in schools, in industry, in the military, and in government agencies.

The Carnegie Corporation of New York granted $50,000 to the NEA to defray the cost of the symposium, according to Lawrence G. Derthick, NEA, assistant executive secretary for educational services. About a dozen of the foremost authorities in programed learning have accepted commissions to prepare papers for the symposium and 30 discussants have been invited to attend. Dr. Robert Glaser of the University of Pittsburgh, will direct the event and Dr. A. A. Lumsdaine of the University of California will serve as a consultant. A follow-up national conference will be held in Detroit June 26–28 immediately preceding the NEA convention.

College Enrolments Up Again

ENROLMENT of full-time and part-time college students increased this fall for the 11th consecutive year to an all-time high of 4,207,000, the U.S. Office of Education reported recently. This exceeded by 8.1 percent the previous record of 2,891,000 set in the fall of 1961. Covering only degree-credit students, the percentage of increase for men was 7.4 and for women it was 9.3.

In spite of the general increase, the enrolments in engineering colleges dropped 2.3 percent, according to a survey by the Engineering Manpower Commission, which said that the reasons for the decrease were a mystery to manpower experts. In the meantime there are predictions of growing manpower shortages in engineering.

Fischer Issues Statement

AT his induction as president of Teachers College, Columbia University, John H. Fischer indicated that under his direction the institution will break with the type of progressivism that was dominant in the institution in the 1930's. He stated, "There is no doubt that many children can learn more of certain material, can learn it faster and can understand it earlier than some teachers ever thought they could. But what a pupil can do and what he should be doing are not necessarily the same. Indeed, much so-called progressive teaching came under critical fire and has been largely abandoned precisely because children too often did merely what they could rather than what was good for them to do."

Robert J. Schaefer, director of the Graduate Institute of Education at Washington University, St. Louis, Mo., and former assistant dean of the Graduate School of Education at Harvard University, has been named dean of Teachers College, replacing Fischer.

Fight Textbook Intimidation

THE National Council of Teachers of English has joined the fight against self-styled censors of textbooks and libraries with the publication of a booklet, *The Students' Right to Read*. Concerned over the pressures and intimidations on libraries and textbooks by various community groups attempting to remove literary works from school library shelves, the council calls for a campaign to explain why literature is taught, what standards are used in selection, and what reputable and unbiased selection aids are used as guides. The pamphlet is obtainable from the council at 508 South Sixth St., Champaign, Ill.

Teach Corps Authorized

THE NEA has established a Teach Corps made up of experienced American teachers who will provide summer in-service training for teachers in foreign lands. The NEA's committee on international relations has employed Richard D. Childs, formerly director of the California Texas Oil Co. school in Sumatra, Indonesia, as special assistant for Teach Corps activities. Some Corps teachers probably will be serving overseas in Liberia this summer.

DATES OF THE COMING MONTHS:

Feb. 9-13, National Association of Secondary-School Principals, Pittsburgh, Pa.

Feb. 13-16, American Association of Colleges for Teacher Education, Chicago, Ill.

Feb. 16-20, American Association of School Administrators, Atlantic City, N.J.

Mar. 3-6, Association for Higher Education, Chicago, Ill.

Mar. 10-14, Association for Supervision and Curriculum Development, St. Louis, Mo.

Mar. 10-15, National Art Education Association, Kansas City, Mo.

Mar. 29-April 2, National Science Teachers Association, Philadelphia, Pa.

Mar. 30-April 3, Department of Elementary School Principals, Oklahoma City, Okla.

April 3-10, National Council of Teachers of Mathematics, Pittsburgh, Pa.

April 16-19, National Catholic Educational Association, St. Louis, Mo.

The Art of Growing; A Guide to Psychological Maturity. Robert E. Nixon, M.D. New York: Random House, 1962. Pp. xxxi + 159. $3.95.

"Psychological maturity begins when a person knows who and what he really is, as opposed to what he is 'supposed' to be. The eternal maturer is still trying to puzzle out his own identity at 65; the conformer is satisfied to act out what he is supposed to be, and the rebel to refute it."

The author, a psychiatrist at Vassar College since 1951, states his basic premise as being "that the grower can achieve a state of psychological maturity in his middle twenties." This book is a direct and sincere attempt to communicate some practical tips and pointers to youth, and those concerned with aiding them, on how to achieve that state in our society today. Communication is not impeded with excessive technical language. The author's comments about his book include:

". . . this field of inquiry is undergoing extremely rapid development at the moment; new ground is hardly broken before another plow penetrates on the other side of the fence. It would be professionally more graceful, and unquestionably technically easier, to postpone the writing of a book like this until the field is more stable; but it is my impression that neither time nor youth is willing to wait."

Work-Study Programs for Alienated Youth—A Casebook. George W. Burchill. Chicago: Science Research Associates, Inc., 1962. Pp. xiv + 265. $4.95.

This book contains detailed descriptions of nine work-study programs for secondary students in which eight public-school systems and one group of private individuals are combining classroom and job experiences for selected youngsters to prevent them from becoming alienated from their society.

It is noted that laws and social forces affecting young people in this country today do result in squeezing many young people out of experiences that may be their only sources of gaining recognition, security, and standing with peers, parents, and other adults. These are the alienated youth who, by sheer number and the nature of their behavior, have drawn increasing attention until a recent public-opinion poll revealed juvenile delinquency to rank third behind defense and peace as a concern of the public.

The work-study programs described are designed to provide the youth with many of the experiences that technical development in business and industry, legislation affecting minors, and changing social patterns have barred the youth from gaining. The emphasis is on practical combinations of school and work experience which will prepare a youth with skills needed in today's employment market and to provide some counseling according to the individual's needs while gaining this experience.

This is a book which should be of interest and value to all who are interested and concerned for the alienated youth. It should be especially valuable to administrators, counselors, and community leaders in positions where programs can be initiated.

Education and the Cult of Efficiency. Raymond E. Callahan. Chicago: The University of Chicago Press, 1962. Pp. 273. $5.50.

In contrast to arguments about the shortcomings of our schools which place blame on "progressive education," this book presents strong evidence supporting a suggestion that the greatest force undermining intellectual standards was the cult of efficiency and ideology expressed in the maxim: "The business of America is business."

It is suggested that, particularly from

1910 to 1930, the strength of the business-industrial groups was in direct contrast to the vulnerability of public-school administrators. Pressure was on schools to operate economically, to adopt business values, and to follow edicts of time-and-motion study experts. Evidence is submitted to support that during this period decisions were made on monetary grounds as superintendents accepted the role of business executive or plant manager. This business-manager conception also was extended to dominate graduate programs in educational administration.

The author suggests that the pressure has only changed from one educational fad to another—today the call is for mathematicians and scientists, for TV and teaching machines.

Raymond E. Callahan, who is professor of education, Washington University, St. Louis, states that we still ask: "How can we operate our schools?" He recommends asking: "How can we provide an excellent education for our students?"

Measurement and Evaluation in the Modern School.

J. Raymond Gerberich, Harry A. Greene, and A. N. Jorgensen. New York: David McKay Company, Inc., 1962. Pp. xviii + 622. $6.95.

This is a new publication; not a revision of, nor a replacement for, the earlier titles *Measurement and Evaluation in the Elementary School* and *Measurement and Evaluation in the Secondary School.*

It is aimed to be an aid to both elementary-school and secondary-school teachers in training and to serve as a practical guide for teachers in service. It covers such topics as: theory and practice of pupil appraisal; nature and use of standardized tests; and construction and use of classroom tests and their interpretation and application to results of statistical procedures. Measurement and evaluation in each school curriculum subject area are discussed specifically.

The authors stress practical problems of improving teacher-made examinations, tests, and evaluative instruments. They recommend this volume as suitable as a first book in measurement and evaluation for those students who know very little about measurement in education and its possibilities for improving classroom instruction.

Principles of Modern Education.

Ralph L. Pounds and Robert L. Garretson. New York: The Macmillan Co., 1962. Pp. xvi + 456. $6.25.

This book, utilizing research from the social sciences in combination with descriptions of classroom experiences, discusses the principles of education in relation to American society today.

The book, which is designed as a basic text in education, focuses on the educational process in the classroom. Some significant features include: education and the cold war; developments in psychology and other sciences contributing to education; the teacher as a factor in the learning situation; and critical issues, suggestions, and implications for the forseeable future.

The book is structured to develop the principles in the first parts of the book with following sections presenting a summary with applications of the principles to the future. There is a summary at the end of each chapter for study convenience.

OTHER MATERIALS RECEIVED: ELEMENTARY

Man to the Moon. Hanniford Rush. Chicago: Rand McNally and Company, 1962. Pp. 96. $2.95. A book on Project Apollo.

Roosevelt's America. Robin McKown. New York: Grosset & Dunlap, 1962. Pp. 95. $2.50.

The New Guess Who and **Fun with Our Friends.** Helen Robinson, Marion Monroe, and A. Sterl Artley. Chicago:

Scott, Foresman and Company. Pp. 96 and 160. $1.56 and $1.72, respectively. Junior primer and primer in the new Basic Readers, Curriculum Foundation Series. Teacher's edition available.

The Shape of the Earth. Patrick Lynch. New York: St. Martin's Press, 1962. Pp. 64.

San Franciso. Jean Fritz. Chicago: Rand McNally & Company, 1962. Pp. 143. $2.75.

Pioneer Germ Fighters. Navin Sullivan. New York: Atheneum Publishers, 1962. Pp. 164. $3.75.

The True Book of Chemistry; What Things Are Made Of. Philip Carona. **The True Book of Spiders.** Illa Podendorf. Chicago: Childrens Press, 1962. Pp. 47 each. $2.00 each.

Beowulf. Retold by Rosemary Sutcliff. New York: E. P. Dutton & Company, 1962. Pp. 93. $3.00.

Pooh—His Art Gallery. New York: E. P. Dutton & Company, 1962. $4.95. Eight watercolors by E. H. Shepard, suitable for framing.

SECONDARY

The Solar System; Our New Front Yard. Clifford D. Simak. New York: St. Martin's Press, 1962. Pp. 290. $4.50.

Heroes of Our Time. Lord Shackleton, Norman Cousins, *et al.* New York: E. P. Dutton & Co., Inc., 1962. Pp. 181. $3.50. Concise biographies of 14 contemporary men and women.

How to Deal with Parents and Other Problems; A Guide for Teen-Agers. Ernest G. Osborne. New York: Grosset & Dunlap, 1962. Pp. 149. Good advice, written in spritely fashion. Susan Perl's illustrations are priceless.

Great Trains of All Time. Freeman Hubbard. **Great Cars of All Time.** Irving Robbin. New York: Grosset & Dunlap, Inc., 1962. Pp. 156 and 209. $4.95 each.

Know Your Car and How to Drive. Bruce Grant. Chicago: Rand McNally & Company, 1962. Pp. 72. $2.95, cloth; $1.50, paper.

The Picture History of Astronomy. Patrick Moore. New York: Grosset & Dunlap, Inc., 1962. Pp. 253. $5.25.

Etiquette in Everyday Living. A 15-page booklet developed for use in home economics classes. Available from Public Relations Department, Wallace Silversmiths, Lancaster, Pa.

Finding My Way. Borghild Dahl. New York: E. P. Dutton and Company, Inc., 1962. Pp. 121. $3.50.

Annotated Bibliography of Materials in Economic Education. Revised 1962. New York: Joint Council on Economic Education, 1962. Pp. 46. $.75.

COLLEGE

Economics of Higher Education. Edited by Selma J. Mushkin. Bulletin No. 5, (OE-50027), U.S. Ofice of Education, 1962. Pp. xviii + 406. Available from U.S. Government Printing Office, Washington 25, D.C. $1.50.

Internal Structure; Organization and Administration of Institutions of Higher Education. Archie R. Ayers and John H. Russell. Bulletin No. 9, (OE-53012), U.S. Office of Education, 1962. Pp. vii + 123. Available from U.S. Government Printing Office, Washington, D.C. $.45.

The Deanship of the Liberal Arts College. David B. Mobberley and Myron F. Wicke. Nashville, Tenn.: Division of Higher Education, Board of Education, The Methodist Church, 1962. Pp. 72. $1.00.

A Survey of Federal Programs in Higher Education. J. Kenneth Little. Bulletin No. 5, (OE-50033), U.S. Office of Education, 1962. Pp. viii + 56. Available from U.S. Government Printing Office, Washington 25, D.C. $.25.

GENERAL

The Human Face of Europe. New York: Hill and Wang, 1962. $3.50. More than 100 of the best pictures from an international photography exhibition.

Helping the Brain Injured Child. Ernest Siegel. New York: New York Association for Brain Injured Children, 1962. Pp. 158.

Financing the Public Schools, 1960–1970. Washington, D.C.: National Education Association, 1962. Pp. 152. $1.50. A report of NEA's Special Project on School Finance.

Guidelines and Opportunities for Leadership in the Education of Gifted Children and Youth. Washington, D.C.: Council of Chief State School Officers, 1962. Pp. 28. $.35.

First-Aid for Classroom Discipline Problems. Rolf E. Muuss. New York: Holt, Rinehart and Winston, Inc., 1962. Pp. v + 62. $1.00, paper.

Social Studies Framework for the Public Schools of California. State Curriculum Commission. Sacramento: California State Department of Education, 1962. Pp. 109.

Maria Montessori: Her Life and Work. E. M. Standing. New York: The New American Library, 1962. Pp. 382. $.95. A Mentor-Omega paperback.

Studying Africa in Elementary and Secondary Schools. Leonard S. Kenworthy. New York: Bureau of Publications, Teachers College, Columbia University, 1962. Pp. 50. $1.00, paper.

An Educators Guide for Preparing Articles for Periodicals. James W. Carty, Jr., 1962. Pp. 62. $1.00. Available from the author, Bethany College, W. Va.

New Trends in Adult Education. A. S. M. Hely. **Adult Education in Yugoslavia.** M. David. Two new Unesco monographs on education. Pp. 136 and 185. $1.50 and $2.00, respectively.

The Statesman's Yearbook, 1962–63. (99th Edition.) New York: St. Martin's Press, Inc., 1962. Pp. 1701. $9.50.

Modern Mathematics: Introductory Concepts and Their Implications. A. B. Evenson. Chicago: Scott, Foresman and Company, 1962. Pp. 206.

The Law Governing Teaching Personnel. Lee O. Garber and Newton Edwards. Danville, Ill.: The Interstate Printers and Publishers, 1962. Pp. vii + 117. $1.50, paper. No. 3 in the School Law Casebook Series.

Four Ages of Man; The Classical Myths. Jay Macpherson. New York: St. Martin's Press, 1962. Pp. 205. $4.50.

Educators Guide to Free Science Materials. (Third Edition.) Edited by Mary H. Saterstrom. Randolph, Wis.: Educators Progress Service, 1962. Pp. xix + 307. $7.25.

See It and Say It in German. Margarita Madrigal and Inge D. Halpert. **See It and Say It in French.** Margarita Madrigal and Colette Dulac. New York: The New American Library, 1962. Pp. 256 and 254. $.50 each. Two Signet Language paperbooks.

The Selection, Administration, and Content of Health Insurance Plans for Public School Districts Personnel. Palmer G. Campen. **Purchasing and Supply Management Manual for School Business Officials.** H. Spilman Burns. Evanston, Ill.: Association of School Business Officials of the United States and Canada, 1962. Pp. 72 and 144. $1.00 and $2.50.

Calendar of Meetings of National and Regional Educational Associations, 1962–63. Washington, D.C.: The National Catholic Educational Association, 1962. Pp. 44. $1.00.

The Future of Public Education. Myron Lieberman. Chicago: The University of Chicago Press, 1962. Pp. xiii + 294. $1.50. A Phoenix paperback.

AUDIO-VISUALS

Channels of Learning: The Story of Educational Television. John Walker Powell. Washington, D.C.: Public Affairs Press, 1962. Pp. xi + 178. $4.50.

The Needs of Education for Television Channel Allocations. U.S. Office of Education publication OE-34017, 1962. Pp. 181. Available from U.S. Government Printing Office, Washington 25, D.C. $9.25. A survey by the National Association of Educational Broadcasters.

Educators Guide to Free Tapes, Scripts, Transcriptions. (Ninth Edition.) Randolph, Wis.: Educators Progress Service, 1962. Pp. xviii + 177. $5.75.

Films for Junior and Senior High School: Language Arts and Literature. Bloomington, Ind.: Audio-Visual Center, Division of University Extension, Indiana University, 1962. Pp. 52. Free.

14 MAR 1963

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Volume XXVIII FEBRUARY 1963 Number 6

A Plea for Their Place in the Schools

Facts of Life

JOHN R. SEELEY

In The Toronto Education Quarterly

John R. Seeley is Chairman, Department of Sociology, York University, Toronto. Reported from The Toronto Education Quarterly, *II (Autumn 1962), 1–7.*

WHEN I am asked what the schools should do that they are not now doing, I reply, "Level with the kids."

My views are received usually with kindness and enthusiasm. But nothing happens. I conclude that, despite repetition of my simple message, I have not been understood, perhaps because I have not spoken plainly enough. This lack of understanding demands a new attempt.

As I write this, through my window I can see the modern school my younger sons attend. Without a break of fence or boundary, its play-yard abuts a strip of greenbelt, which abuts my home lawn. This is no accident, but a powerful symbol of a significant reality. No longer is there the sharp, designed break between the soft, warm protections and illusions of home and the harsh, cold practicalities and "realities" of school.

No longer does home represent the glad way the world ought to be, and the school, the sad way it is. Emotionally as well as physically, each child moves across that undivided greensward, from "his" lawn to "our" greenbelt, to "their" school. It is hardly a weaning; the break, if there is one, is minuscule.

And when he gets there, the child encounters as decent a society as he is ever likely again to encounter: as good and decent a society as his home, if he comes from a good one; far better, if he comes from a bad. The world he meets is largely scaled to his size, tailored to fit him, tolerant within reasonable limits of his odd angles and corners, impunitive, warm and bright, unconstrictive—a place fit for a child to live.

It is regrettably true that as we go up the school grades the infusion of humanity and decency steadily diminishes, so that in the higher reaches we are not much more than medieval; but I am consoled that further changes are largely a matter of time.

With all the qualifications and exceptions that might be made, with all the pointings to the margin between intent and performance, it is my judgment that teachers and administrators of education together have built an institution better and more enlightened and humane for its day than any other in the society.

How, then, can a body so praised be open also to devastating criticism, especially from the same source?

What I have to say is that what I regard as the best of institutions is the worst of *educational* institutions—if education is any way involved with what is formally communicated. What the school *does* is, to a large and creditable extent, based on the twentieth century; what the school *says* is lost somewhere in the mists of the sixteenth century—or the twelfth.

The school is a good society, or as nearly so as the surrounding society will permit. But its central function—which, I believe, is to tell the child the way the world is —has been sacrificed. All else it does with distinction; only this it fails to do.

I am not here joining in the cry for excellence, though I do not doubt, if we do not overdo it, that excellence is excellent. I am only saying in the simplest way that the school fails formally to teach the child which end is up, what are the facts he needs to know about the world in which he lives. If that is not a function—the central function—of the school, of course the charge fails.

The indictment is that, with respect to all major matters, the school stands today where it (and the family) stood with reference to the matter of sex a generation or two ago. In that matter, home and school, indeed the whole adult world, maintained a conspiracy of silence against the child. Where the silence could not be maintained, the adults lied or misled. If the child came at all to any sane appreciation of the leading facts his sources of information were informal and essentially bootleg.

The costs of this now largely abandoned procedure we surely know. Many of them we are paying yet. Knowledge that is bootleg in origin retains its bootleg character in utilization—that to which it refers retains forever considerable coloration of the darkness from which it came.

But that era is, for the most part, over. No one needs to be taken seriously who disputes that children should be informed about sex as fully and decently as their growing understandings will permit.

KEY FACTS OF LIFE

The facts suppressed today are, now even more than before, the key "facts of life": facts about the nature of human nature, about the nature of society generally and the state of ours particularly; facts about power, wealth, the state of ethics and philosophy in our age; the facts about themselves; even the facts about the school and the educational enterprise. Of course, it is *only* the key facts of life that are suppressed, and every society suppresses these. But who tells the children that?

How and where does the child learn the brute facts about power? How it is seized and maintained? How it is served by institutions ostensibly designed to stand against it? When do they read Machiavelli, Mosca, Laswell and Marx?

How does the child learn the brute facts about money? How it is made—not in the niggling amounts that represent pay or salary for work done, but in the really large chunks that come out of pipelines, large electrical combines, or cartels, trusts, or oligopolies? How and when does he learn how business, big business, is actually done as against some image based on a seventeenth-century Hanseatic merchant?

Where and when do children learn the actual nature of their own natures and what is now known about these? Who helps them understand and cope with the deeper, more inaccessible aspects of the human personality, the profounder motives, the more hidden drives? When do they encounter Freud, Piaget, George Herbert Mead, or even Gesell?

How and from whom do children learn about social class? About the function of myth in society generally and about leading myths of their own? If they can read travelogues in the lower grades that merely make strange folk look quaint, can they not have then, or soon after, the deliverances of modern anthropology translated into language within their grasp? Can they really grow up into the world as we know it as if Boas, Malinowski, Ruth Benedict, and Margaret Mead had never existed?

Let it not be said that we do not teach these things because children are incapable of comprehending them. Nor because the facts are "still in dispute" or too uncertainly founded. Nor because we do not know the facts ourselves.

As to the first, not only do the children easily understand such things, but they are the stuff of life they want to learn about and discuss. Here as elsewhere just *how* to introduce them to the truth is merely a pedagogical technicality; the commitment to do so is a moral decision.

If the school taught only facts certain or beyond dispute it would teach nothing at all; the very geometry we taught yesterday is seen today as having a false foundation logically. The same is true for calculus and, notoriously, yesterday's fundamental physics.

As to not knowing the facts ourselves, we should, of course, learn them if we were committed to communicating what they are about.

No, the reason they are not

taught is because they *do* matter. They are not taught because there is a vested interest in ignorance about them; because, like most truths worth hearing, they are uncomfortable and they ruffle composures. They are not taught because in favoring freedom and a better life they threaten order and a safe and easy hegemony for those already having the most of whatever there is to get.

The point is that what we have learned about men and society since the seventeenth century is either withheld from the child, or mediated to him in an expurgated, misleading, and false fashion.

The answer to "He gets all this when he gets to college, doesn't he?" is: "Perhaps, but by then it is too late."

The reason why university is too late (apart from the fact that not everyone gets to a university) is that the kind of knowledge I am speaking of is fundamental, not superstructural. It is the kind of knowledge that transforms life as it is experienced—and should transform it early. Such knowledge is properly a foundation block—not a coping stone. It can no more be left as a finishing gesture than the notion of numbers could be left for introduction in grade 13.

I ask, why not tell our pupils and students the facts of life from the beginning? Every society, as I mentioned earlier, suppresses or attempts to suppress the key facts of life. How can I now ask that our society do other?

I believe that our society is, actually or potentially, a different society, in at least one respect. Perhaps this is not the first society with selfconscious, powerfully organized, professional educators, though it is different in degree in that respect also. But it is the first society with a busy, selfconscious, dedicated cadre of social scientists whose business it is, in part, to report social reality, *what is* rather than *what we should like it to be.*

Their presence makes it more difficult to bury heads in the sand—they keep drawing attention to what is not visible from that position. So educators who wish to know may know what it is they are joining with powerful interest to suppress. Educators may not be able to avoid knowing. And once they know these things, they are brought into conflict with their own powerful professional goals. They can no longer be unwitting conspirators for ignorance. They may not be willing long to be witting ones.

There seems but one answer compatible with duty—and it goes far beyond tinkering with the curriculum to get in more science or mathematics earlier or better. The answer is to redesign the school experience so that what is most important to all—an adequate orientation to the human world in which the children live—has not only a place, but, without question or qualification, the place of priority—the first place—that it deserves.

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Is It a Trojan Horse?

The Teaching Machine: Psychology's New Hobbyhorse

JOACHIM F. WOHLWILL

In Teachers College Record

SINCE the appearance in 1958 of B. F. Skinner's paper on teaching machines, the teaching-machine movement has been growing in band-wagon fashion. Indeed, it is fair to regard the current invasion by psychologists into the field of education as constituting something of a revolution with the psychological profession. Curiously enough, however, it has remained thus far a remarkably quiet and uncontested one.

With a few isolated exceptions there has been little inclination to undertake a critical appraisal of this movement, the soundness and desirability of teaching machines being generally taken pretty much for granted.

My acquaintance with this area derives mainly from published literature. Yet, for a psychologist interested in the development of the thought processes in children and in the psychological foundation of education, certain aspects of the teaching-machine approach raise some fairly basic issues which deserve more discussion.

I aim to promote such discussion by presenting several broad criticisms of the current work on teaching machines. I offer that the theoretical foundation on which this work allegedly rests is tenuous and unconvincing; that the adequacy of present-day programing is questionable in the light of our knowledge—and lack thereof—of relevant aspects of the learning process; and, perhaps most important, the teaching-machine movement is built on and fosters a very narrowly conceived debatable view of the educational process and of the philosophy of education.

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Skinner and his associates have repeatedly claimed that the rationale of the teaching machine is backed up by well established principles of learning which have emerged from extensive research in the psychological laboratory. However, except for attention given to immediate reinforcement of responses, the particular relevance of the laboratory work to the learning of a program by teaching machine is largely left to imagination. This is not surprising, given the considerable gap to be bridged between the acquisition of a bar-pressing response by a pigeon in the Skinner box and the writing of a verbal response by a student in the frame of a machine program.

Experimentation in the Skinner box typically involves acquisition and maintenance of a single, or possibly two or three, discrete responses in an essentially unchanging stimulus situation. By contrast, learning via the teaching machine confronts the learner with a constantly changing succession of stimulus configurations (questions) and a corresponding succession of different responses, each ideally to be learned, by Skinner's insistence, in a single trial.

To ask what makes such near-errorless learning possible is to encounter a second major difference between the teaching machine and typical Skinner-box learning: organization of the items to be presented in a determinate sequence through a gradual progression in small steps.

Skinner has tried to relate this principle to acquisition of relatively complex motor skills in the laboratory, which also appears to involve a gradual "shaping" of the response through a series of small steps. The case of the pigeons taught to play ping-pong is a favorite example. This analogy, however, begs the essential question as to what constitutes a series of small steps in a program. Successive frames in a program are not related by virtue of similarity of location or appearance; rather they are arranged in a supposedly meaningful sequence, governed by the internal structure of the material to be learned and the semantic and syntactic characteristics of the verbal stimuli of which they are composed.

Far from an occasion for routine application of well-known psychological principles, therefore, it appears that learning of a program, with or without a machine, raises a host of important questions for the psychology of learning—questions which at this stage of our knowledge remain largely unanswered.

Subject matter characterized by a high degree of internal structure—math, logic, and physical sciences—exert a fascination on those active in the field of programing. These subjects lend themselves most readily to construction of programs consisting of a rational sequence of small steps. Once this learner's ladder is erected, it is assumed the learner will inexorably move upward by dint of successive reinforcements.

This approach takes for granted the intervention of certain verbal and mediational processes in the learner, whose role is hardly recognized, let alone understood. One might ask: By what magic does the learner respond to the logical or semantic relations between successive items in a sequence built by the programer? That the learner may respond is undeniable, but until some attempt is made to investigate just *what* the learner does in proceeding along such a sequence, this will remain a purely pragmatic enterprise built essentially on guesswork.

The real problem here appears to be the programers' reluctance to come to grips with the question of *what is learned*. In other words, the question of transfer, which is intimately tied up with the nature of the learning process. As in love and war, all's fair in programing, it seems, provided it leads to the correct response. Yet one may question whether the learner invariably learns the same thing, whether his response follows logically from the previous one, involves a rearrangement of the semantic components of a previous item, or is fairly coaxed from him by such tricks of the trade as prompting.

How is the problem of reasoning and understanding handled in this kind of an approach? Discussions of this problem give no clue as to the rules by which the relevant generalizations and concepts are to be incorporated into the program—rules which presuppose some theory of the process of concept formation and reasoning. In their absence the programer is reduced to a procedure of random sampling of stimulus contexts, supplemented at best by his own intuition as to what the actual dimensions of this process are.

In spite of this criticism of current work in programing, it is apparent that the concept of programing—the presentation of materials to be learned in an orderly sequence conducive to learning — represents a potentially significant contribution to pedagogical practice. But is the most effective use of this technique in the classroom or, as has been suggested from several quarters, could it be employed most advantageously in training teachers?

From the writings of workers in the teaching-machine field, it appears that their activities represent essentially an engineering venture, altogether neutral with respect to broader questions of the philosophy of education.

In application, such a prescription tends to impose, in itself, a very definite conception of the objective of the educational process: the acquisition of *particular correct responses*.

The consequences of such a view can be examined in a specific instance: the section devoted to scientific method in Holland's and Skinner's program in introductory psychology.

It is clear that the authors are aiming at familiarization of the student with a set of verbal terms such as "dependent variable," "independent variable," "control," etc., and increasing his skill in using such terms far more than they attempt to teach an understanding of the problems and issues arising in application of the scientific method in psychology.

This approach has, of necessity, failed to convey, here as elsewhere in the program, any sense of the significance of the material covered or of the problems which it raises. From a study of this program it would never dawn on the student that there might be any questions, any unresolved problems anywhere in the field of psychology! It is apparently all reducible to a limited set of perfectly unequivocal facts, terms, and laws. Here we come to one of the most essential objections to be leveled at the programed-learning approach to teaching: its disregard of the role of questions in the learning process. The asking of questions represents more than just an instrument in learning; it may be regarded as having a definite educational value in and of itself.

Another aspect of learning conspicuously neglected by machine instruction is verbal expression. While educators at all levels recognize improved expression as a major need and are emphasizing the importance of essays and oral reports, a strategy of teaching which rarely allows the student to emit a sequence of even two words seems hardly calculated to help in meeting this need. Seen in this context, the controversy between proponents of Skinner's approach, in which the learner composes his answer, and the advocates of multiple-choice responses fades into insignificance.

It seems appropriate to ask an auspicious educational innovation to give greater recognition to needs more intrinsic, such as those underlying children's exhibitions of curiosity, creativity, and imagination. In this connection, it is encouraging to note increasing interest by psychologists in study of this kind of motivation, directed at arousal rather than satiation of the individual. The educational potential of this approach appears scarcely to have been tapped but the basic groundwork has been firmly prepared.

It would be regrettable if the publicity and fanfare accompanying the teaching machine movement diverted attention from less glamorous but more significant developments in psychology that are of more direct relevance to education. Psychology is shifting from preoccupation with rote learning towards interest in acquisition of concepts, meanings, and problem-solving behavior. Indications are strong that psychologists are discovering the significance for psychology of a variety of problems arising in education of children. For example, psychologists now cooperate with educators in studying the processes by which children learn to read, to solve mathematical problems, and to understand scientific concepts.

I suggest that it is precisely this direct involvement by psychologists in problems relevant to education of children that will make possible eventual development of selfinstructional techniques. But at the present stage of development in the arts of teaching by machine and program, educators may do well to look this particular mechanical gift horse in the mouth, lest it turn out to be of the Trojan variety. ●

Excellence Is Relative

LOUIS E. RATHS

In Childhood Education

WE frequently say to children, "You should always do your best." Should we? Does the teacher always dress her "best?" Does she always write her best?

If we are trying to develop discriminating judgment in children, we foresee a time when they will sense that a situation calls for the very best that is within them to give. It isn't the rigid, compulsive, *always* best that will give intelligent direction to life. Excellence carries with it the idea of its appropriateness: in time, circumstance, and the needs of the situation.

When a child is playing with someone younger who proves to be less competent, should he play his best and overwhelm his playmate? The situation calls for discrimination, for adjustment to the many factors involved. The compulsive "always best" child will meet many situations more complicated than this, and no easy formula can be his best guide.

We sometimes associate the idea of excellence with individuals who win in competitive aspects of life. It is quite easy to get the idea that those who win have exhibited excellence. Teachers know that many winners secure awards through factors other than excellence. It is a difficult task to help children develop their *own* ideas of what constitutes excellence *for them.*

We say to a child, "You can do better than that." Perhaps he can, but it may indeed represent his best efforts. How do we know so surely that he can do better?

This raises the question of excellence for whom? If the criterions for excellence lie outside the growing child, he may be at the mercy of a number of adults with greatly varying expectations of excellence. The principal may disagree with the teacher and both may be at odds with the parents; all three may be far removed from the child's own conception of what constitutes excellence.

In a free society we prize variety

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in individual expression. We prize it more when the child's own ideas become part of the totality of choices from which he may finally decide what is best. We prize it less when these various standards of excellence are absolutes, absolutes in conflict with each other.

In our relations with children, we adults seem to be operating on the assumption that excellence is in hiding and that on demand, threat, or coercion we can bring it forth. If we press too hard, ask for too much, expect what is not there at this time and place, we may be inducing fear, shame, guilt, and even fear of trying. The very idea of *excellence* must seem remote to many children: an aspiration, perhaps, but not something to be achieved in this next half hour or tomorrow.

We want children to prize excellence—when it means a great deal; we want children to choose excellence—when the choice makes a real difference and when it has significance for them; we want children to get in the habit of wanting and choosing what is excellent—when this habit gives direction to life that is fluid and flexible and takes into consideration the many factors that impinge on their life situations. We want children to have excellence penetrate their living in such a manner that criterions are often discussed and what is judged to be excellent will be chosen, bought, used, collected, read, until it becomes a part of their very nature.

We need to help children to identify criterions for excellence. We will not accomplish much with slogans.

CRITERIONS OF EXCELLENCE

The culture surrounding the growing child is confusing with its many standards of excellence. Is it excellent or a sign of excellence to do something first? Or is this act to be judged in terms of a variety of criterions of excellence? If found to be excellent, then and only then will the fact of being first get some added value.

With our centuries-old emphasis on *bigness,* children sometimes get the idea that bigger houses are better houses, that bigger schools are better schools, that quantity determines quality. Whenever this shows up in class, can we discuss the point? Can we raise questions about what makes something excellent? If we can, we are on the way toward the development of criterions which children may apply to new situations.

Speed is another commonly accepted single indicator of excellence among children. To finish something ahead of everyone else, to get there first, to get things done quickly—this is a goal to be attained. We should ask about the urgency of the situation. Was speed necessary in this case? Why? What made speed important in this case? And in cases where time is of the essence, let us by all means include it in judging the excellence of the work.

Still another single indicator of excellence is *cost* in terms of money.

Many children have the idea that those things are excellent which cost the most. While there may be an element of truth in this as a general idea, it is useless to apply this generalization to a particular case and judge it to be excellent *because* it is most expensive.

Here again we see the need for working with children in the development of criterions for judging excellence. It is a slow process and it has to be repetitive. Whenever choices are possible in the classroom, it is then possible to raise the question of criterions for choosing. In these daily discussions of what makes things excellent, children share their ideas with each other. They learn to reflect before making generalizations about excellence. They come to have ideas of their own about how to judge.

On some occasions we want to say to a child that a particular piece of work is excellent because it is so much better than what he did previously. Is "excellence" associated with progress, or is it applied only to the finished product? Judgment of excellence sometimes means excellent for Johnnie at this time and in this place. We see the judgment as a reward for achievement that *surpasses previous achievement.*

As a child grows into the world in which he lives, he tries to make some order out of it. He learns from his experiences and generalizes from them. He listens and tries to make sense out of what his elders tell him. As he chooses and reflects on the bases for his choices, as he listens to other people defend their judgments, he comes to have criterions of his own.

We need to caution him about the dangers of judging excellence: so many great critics have been wrong in their judgments! We don't really know how to teach him to make judgments: how to weigh the different criterions, how to integrate them, how to give the one or two the central importance due them in a particular situation.

Our faith lies in a curriculum where there is rich opportunity to choose, to set forth criterions for choosing, to weigh, to decide, and to share one's thinking with others. We have plumped for the freer society, and only time will tell whether this produces a high order of excellence. We have faith that it does and that it will. ●

Truth Is Relative, Too!

● During kindergarten playtime, one little girl said earnestly to another, "No, the devil isn't *real,* like God. He's just a make-believe man who *means* naughtiness."—Mrs. H. O. Miller in *New Mexico School Review.*

● Then there is the teacher who added the following note to an otherwise poor report card: "Johnny contributes nicely to group singing by helpful listening."—From *Council for Basic Education Bulletin.*

Environment for Learning

ALICE V. KELIHER

In Environment for Learning for Today's Children

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THE environment for learning for today's children is in some ways different, and yet in many ways the same, as for yesterday's. Today's children bring to school a variety of new experiences, good and bad, that should be taken into account: Kindergarten children may have flown by jet from far places in the world; young children watch all kinds of TV programs and thereby bring new ideas and new vocabularies to school; and transiency, resulting from mobility of parents, can bring attendant strains and demands for ever new adjustments.

In addition, pressures to speed up learning load many children with new worries—reading at four and five, pressure for formalized kindergarten programs, and boasts by some school leaders that "play" is out of the program.

These and many other changes in the environment of the modern child call for careful consideration by school people of what teachers need to do to give learners the best possible education in these troubled times. There is no question of the child's need to learn, particularly to learn *how* to learn, in this world of exploding new knowledge. But we need constantly to remind ourselves of how learning best takes place and of what we know about readiness for learning, about "learning that lasts," and about the good environment for learning.

The most vital unchanged and unchanging need in good environment for children is good people. Parents, of course, are the child's most important people. Children are off to a head start in all aspects of learning when they come to school from loving, interested, understanding parents. Wise teachers draw such parents into the classrooms to help in the endless ways such parents can.

Perhaps the most important way parents can help is in the heart-to-heart teacher-parent conferences, where the teacher and parent are partners striving to extend and deepen their understanding of the child for whose education they are mutually responsible. Good administrators are making time readily available for these partners to consult with each other.

Next among the child's important people are teachers. Today's teacher is under tremendous pressure. Without spelling out the specific criticisms, charges, and counter charges accompanying heightened interest and emphasis in education today, it should suffice to say that today's teacher must be a sturdy person to stand straight in the midst of all the conflicting winds.

GOOD TEACHER QUALITIES

What qualities does the sturdy teacher have? What qualities of the human environment for learning does the good teacher embody?

The good teacher *likes people,* especially children. He is interested in them, is intrigued by their way of doing things, likes to watch them grow in mind and body, enjoys their emerging accomplishments. This teacher knows about the rough edges of growth—that boys and girls need help and guidance—that this is the reason for teachers.

Early each year the good teacher manages some time alone with each child, listens carefully to tales of his experiences, ferreting out the interests, dreams, and peculiar needs of this unique individual. The teacher makes notes of his growing knowledge of each child so that he can teach to meet individual needs, a way of teaching that is indeed diagnostic of each child.

The wise teacher is *sensitive to needs and values.* The school day has high lights of peak experiences with rich feelings and deep meaning. There are moments of rare beauty in the sharing of poetry, music, literature, or the emergence of a butterfly from its chrysalis. Time schedules are flexible to permit lingering with worthy ideas and activities, to permit fleeting moments of high value to be noticed. Time is the servant, not the master, in this teacher's day.

The good teacher is *relaxed and pleasant.* When his pupils set out from home in the morning, they can look forward to a pleasant greeting and a feeling of being welcome in their classroom. Parents can feel the same way. A sound sense of values reduces tensions over little things. Children feel that they can find comfort for everything from a cut finger to a heavy heart.

The good teacher does not get angry about inevitable accidents that go with growing up—the broken flower pot, the book lost in the rain. He remembers his own childhood when small problems loomed as large anxieties.

But while this teacher is warm and friendly, he also *is firm.* He gives children the feeling of dependability, expects good things of them, demands that they carry out responsibilities suitable to their age and that they have agreed to assume. These demands are fairly distributed among all the children, thus helping all to sense that in the school family each has a responsibility to bear. When need be, everyone and everything wait to make clear to the one his duty to the many.

In this classroom environment, rich in stimulating activities, children care enough to behave well. They appreciate the teacher's firm hand which keeps the way clear for many sided action, which they could not enjoy if there were laxness and chaos. On the first day of school and as often as need be thereafter, the teacher talks through with the children how they will arrange the room and how they will organize and conduct their living to be free to pursue their many interests. He always shows consistency and firmness in helping them to carry out their intentions.

This means that the good teacher has *affection without involvement.* He does not depend on the children for personal emotional satisfaction. He is able to stand apart, but with true affection,and enjoy each child as a growing young human being. He can also be objective when a child's aggressive behavior is seemingly directed at him. He knows that each child brings past experiences to school and may be reacting to negative events involving other adults and finding release from these reactions by "taking it out" on the teacher. Such behavior is not resented; it is studied. The teacher learns what the child is trying to say in his behavior and does something positive about it, keeping his sense of humor alive.

The teacher is able to do these things because the teacher is *always the learner*—the student of the people he enjoys so much. He has learned enough about human development to trust normal growth to take place. He knows when he can wait for an important area of growth to mature in a child, when a child is ready for demands to be made on him. He knows enough about the general needs of six-year-olds, ten-year-olds, or twelve-year-olds to be able to make suitable broad plans for an environment for learning, which utilizes materials, equipment, experiences, and activities known to be suitable and permitting flexibility.

Panic over progress is avoided when the teacher is conversant with, and guided by, the developmental research that is available. He realizes that all children progress at different rates and that, since norms are made by finding the middle, half the children must be below the norm. A study of the children's past records and consultations with teachers who have known them in the past arms the teacher with facts to start the year. He is able to justify and interpret the plan for each child with the parent and with the administrator. This teacher has an air of inner confidence and security that is contagious among children and parents. They respect him and his values.

TOGETHERNESS

Teachers and administrators working together constitute another vital element in a child's environment for learning. Children need to feel that important people in their lives are getting along well together. Children are "stethoscopic"; they sense the way people feel about each other, the way school adults get along together. With today's extra anxieties, the child needs more than ever to have important adults close ranks, get together in positive, helpful ways, and build a sound and steady background for the child's own ventures in human relationships.

Other important adults who share in the school child's environment are the doctor, nurse, social worker, secretary, custodian, and the nutritionist. When all blend into an effective working team with mutual respect, understanding of children, regard for the responsibility of teacher and parent, and concern for the wholesomeness of the school community, they become a vital, contributing third dimension in the learning environment.

PHYSICAL ENVIRONMENT

Another important element is the physical environment. Many schemes and devices that call for children to be on the move all day are now invading the elementary schools. When this happens, classrooms belong to the teacher-specialists, not to the children. Elementary-school children should have a room of their own, a room that becomes more and more their own with each day of living in it. This is a prime requisite for a sense of belonging. This room is a place for living and learning where even drudgery has its respected place. Children have individual and committee responsibilities for preparation and clean-up, for planning effective arrangements, for creating its color and charm. They learn how to care for things that have value for them and others.

THE PROGRAM

The program is also an element in learning environment. Learning is rewarding if the program is challenging. With the equipment, materials, events, and people available today, there should be no difficulty in maintaining a rich, vital, active, challenging environment in every classroom. The possibilities are limited only by the imagination of teacher and children.

The richness of world news, new scientific achievements, new ideas in new books and TV shows, new music, trips to new places for new experiences—these are just a few of the resources. Through these activities, the three R's take root, are learned functionally, and hence are meaningful and serve as a base for further learning.

We need today a resurgence of faith in the rightness of childhood—a period of learning, experimenting, failing and succeeding, laughing and crying, questioning, seeking, and growing. Let us assure the child the right to live each year as fully, richly, and joyously as possible. Each year fully lived is the best guarantee of a good year to come.

The good environment for learning makes room and provides time for this precious process of mellow maturing. It calls for the best in teaching. It calls for the artist in the classroom. ●

What Would Be an Ideal Situation?

Places for Learning

J. Lloyd Trump

In Audiovisual Instruction

TODAY'S school typically locates learning in look-alike classrooms, study halls, libraries, and multipurpose laboratories. Are these the best possible places for learning?

The typical classroom is not a good place for creative, inquiring work. The teacher is so omnipresent that it is difficult for the student not to rely too much on him. It is so much easier to ask the teacher than to figure out something for one's self.

The study hall, in modern school construction, has been eliminated. It has been condemned thoroughly on the basis that it is a poor place to study. The typical study hall was unattractive, noisy, policed by a teacher who accepted the assignment reluctantly, and it possessed few aids to learning other than those the students brought with them. Few persons defend the study hall today—excepting those who dislike to give it up as a schedule-making convenience.

In contrast, libraries in the new schools, or remodeled libraries in old schools, are places of quiet beauty with great window walls and colorful murals. The open stacks are inviting with attractive books arranged neatly and pleasant signs urging participation in the stored knowledge. The internal window-walls reveal conference or seminar rooms (usually empty) and other rooms containing tape recorders. All in all, the library gives an impression of a quiet place, staffed by a friendly, knowledgeable librarian, but populated at any given time by only a very small portion of the student body.

The multipurpose laboratories try to combine in one large room a place for teacher demonstrations and for pupil discussions, study, and experimentation. Like most multipurpose rooms, the place is full of compromises. Technology is limited by physical considerations, discussion space is inadequate, study facilities have the same shortcomings as the classroom, and the experimentation area is overstandardized. Combining functions wastes space and hampers efficient use.

Actually three basic questions need to be answered in planning an instructional program: What can

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students learn largely by themselves? What can students learn from explanations by others? And what learning goals require personal interaction among students and teachers?

These three phases of the teaching-learning process must be planned carefully in relation to each other. An *ideal* program in social science can be used to illustrate the relationships and to suggest more specifically the kinds of facilities and the educational settings that are required.

THE WORKROOM

Independent study in this ideal social-science program takes place in a workroom inside the school and in a variety of locations outside the school. The workroom is divided into two rooms, one the size of a conventional classroom (the area should be a little larger than most classrooms, approximately 1000 square feet) and the other room about one-half the size of the first.

The larger room contains about 10 individual study and writing cubicles arranged back to back, five on each side. Each cubicle is 36 to 48 inches wide with a writing surface about 18 inches deep. The cubicles are divided by plywood partitions five feet high. The student will find, either in the room or in the cubicle, a tote tray to hold the material he is using. In another part of the room the student will find at least two tape recorders with earphones so that he can listen to commercially prepared tapes, recordings, or large-group presentations that he has missed or wants to review. In another part of the room he sees a wall screen and projectors equipped with earphones for individual listening. Slides, film, and eight-mm projectors make a wide variety of presentations available.

The room also contains bookshelves with a wide variety of reading materials in social science. Another part of the room has portable chalkboard dividers so that two or three students can group themselves for discussion.

This larger room thus provides places for students to think, to write, or to listen, to view, to read, and to discuss. A diversity of learning materials is readily available. Travel to the library and unnecessary red tape are eliminated. The room is also equipped with a desk for an instruction assistant, an adult with a minimum of two years of college training in social science who knows when to put the student in touch wth the professional teacher or professional librarian. The instruction assistant may be a junior or senior in college, a graduate assistant, a housewife, or a retired teacher.

THE MACHINE ROOM

Adjoining the social - science workroom is the social-science machine room. Among other things, it is equipped with calculating machines, for good social-science instruction includes student surveys and studies in the community, with

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consequent need to tabulate data. The machine room also provides typewriters for writing reports, duplicating machines for preparing them in quantity, and equipment for making charts, maps, etc. A teletype brings the students the latest information on economics, international affairs, and local and regional happenings.

Some materials, of course, will be stored in the central library. A student doing unusually specialized research will need to go there and to other storehouses of information in the community.

Specially designed and equipped large-group instruction facilities are required for film showing, telecasts, listening to recordings, work on programed-instruction materials, etc. New buildings will provide spaces for these activities. Space can be provided in existing buildings by removing a wall between two conventional classrooms and other minor changes to provide instruction for about 125 students.

Similarly, spaces are needed for small-group discussion involving a maximum of 15 students. These spaces can be 50 square feet in size or approximately one-third the size of a conventional classroom. Each school will determine how many days per week and how many minutes per day students will spend in large and small classes and independent study.

In other words, large-group, small-group, and independent study arrangements are designed to accomplish specific purposes, but also have planned relationships to each other. Diverse pupil talents, motivations, and past achievements are recognized in student groupings and the schedule. Methods of teaching change with the size and make-up of the groups. Curriculum content is altered to serve the needs of basic education for all students and depth education for each student according to his individual talents and interests. Instructional materials are selected to serve specific purposes in the system, are related to each other, and are readily accessible to teachers and the students. ●

RALPH McGILL, commenting recently on the unhealthy pre-eminence of football and marching bands in many U. S. high schools, cited the case of the southern Ohio high school whose boosters raised $10,000 to send the band to march in the Orange Bowl parade in Miami, while the school itself is in grave danger of losing its accreditation because the library is below minimum state standards, a third of the teachers are unqualified for the subjects they teach, and the taxpayers have shown no interest in providing the financial support necessary to remedy the school's academic deficiencies.—John Scanlon in *Saturday Review*.

Visitations Are Important

How Holland Built Its New School

VERN J. SCHIPPER

In The Nation's Schools

THE new Holland Senior High School at Holland, Michigan, is proof of advantages gained by having administrators and teachers visit outstanding existing schools before new-school planning begins.

Holland's new high school is a complex of eight buildings, located on a 42-acre campus of a design featuring freedom of space, curriculum planning, scheduling, and exploration—and greater freedom for students. The buildings are: two cogwheel-shaped, partly two-story classroom units; a performing arts center; a library (which also houses the language laboratory, the administrative offices, the audio-visual materials center, and the homemaking department); a visual arts center; a round physical education building; a school shops building; and a maintenance center that houses the heating plant. Total construction cost was $2,206,000.

Prior to planning, the Holland staff selected schools for visitation that were significant from an architectural standpoint or in terms of the school programing, or both.

As faculty members returned from early visits to schools, they learned a first lesson about school visitation. Even though they had been coached on what to look for in the way of new educational programing, they were observing details of the building more than how subjects were being taught. It became evident that criterions would need to be established for evaluating findings from the visits.

To eliminate one problem area, faculty members decided to tell the administrator of the school being visited the specific areas of interest. This overcame the principal's tendency to spend time talking about facilities rather than informing visiting teachers about the program taking place in these facilities.

As the school-visiting program progressed, opportunities were provided for representatives of various departments to participate. Also, there were interviews with specialists from colleges and universities. Visits of greater distances were

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Vern J. Schipper is a member of the faculty, Holland High School, Michigan. Reported from The Nation's Schools, *LXXX (November 1962), 68–70. (This is part of a 11-page section on the new Holland High School, written by Leo. H. Buehring, Associate Editor of* The Nation's Schools, *and Mr. Schipper.)*

made by the administrators, while teams of teachers made shorter trips.

It is the opinion of the faculty members that the time was well spent. The time spent in thinking and talking about schools and students and the constant exchange of opinions and ideas proved invaluable as actual planning with the architect started.

IDEAS GARNERED

Ideas garnered from the visits that influenced planning included:

Packaged food dispensed from food vending machines instead of the usual-type cafeteria. From visiting schools, the idea was gained that some educators spend too much time as cafeteria managers, time that could be invested in what is taking place in classrooms. The new Holland High School has the vending machines, maintained by a commercial operator, located near the central commons of two classroom buildings. Lunches are eaten in the commons area.

A *circular field house with provisions for multiple activities.* Visiting teams liked the looks of a circular field house at a New England school and were impressed mainly with the huge under-roof area it provided for multiple activities. Holland's 180-foot structure has teaching stations, locker rooms, storage areas, and instructor offices encircling the playing floor and the running track.

School-within-a-school. In the East, investigators also observed the "house plan." At the time they did not know whether units in the Holland school should be groups of 100, 300, 600, or 800. They did know that something had to be done about the large high school to enable students to get to know one another better.

Holland's school houses two "little schools" in each of the two classroom buildings. Each "little school" consists of guidance-centered teaching stations of variable sizes and shapes grouped around a central commons. Variations in classroom sizes are achieved with folding partitions. Each "little school" serves as home base for one-fourth of the students, thus enabling every student to belong to an identifiable group. Each "little school" presently serves 200 students but can accommodate 300. Provisions have been made in the master plan for a third unit.

Counseling facilities for counselors and students. Visiting faculty members saw many schools with central counseling facilities with booths where the counselor could interview students, give tests, meet with small committees. There were book racks filled with materials on careers and colleges, but, interestingly enough, the visitors saw no students. They learned that the place for counselors is with boys and girls, and this concept emerged in the planning. Guidance offices are located in the classroom units, away from administrative quarters.

Building chairmen. Visits to other schools also produced the idea for having building or unit chairmen as leaders around whom faculty and students can rally. Primary qualification for a chairman is that he be a superior teacher and a skilled organizer.

FLEXIBILITY

Flexibility in multipurpose rooms. The visits revealed some types of flexible partitioning to be meaningful and others as pure gimmicks to be avoided. Advantages were noted in being able to seat students for large group instruction, average size classes, or individual conferences. The visits enabled a high degree of flexibility to be planned in the design of multipurpose rooms. The four commons rooms in the new school, furnished with lounge furniture and tables, have multi-use potential for meetings, large group instruction, seminars, individual study, assemblies, dining, and community activities.

Library as a campus center. The conviction that the library is the heart of a good school was supported by observing other operations. As a result, Holland's library is in the physical center of the campus, where all students have ready access to it. The library has seating for 100 students and shelving for 15,000 volumes. Important units include a workroom, periodical storage, and a conference room. Study carrels, which line the library window area, offer students space for private study.

School as a community center. A final lesson learned from visits to other schools was a reminder that the school plant and facilities should not be limited to daytime use—that it should serve the citizens of the area. As a result the school was designed to provide for many community activities. The community is served through use of the performing arts center, field house, shops, and the art department. Facilities are available for productions by community players, musical groups, and parochial schools. Ample, easy parking has been provided.

As one of the faculty members taking part in the visits to other schools, this writer fails to see how a new school can be planned successfully without providing administrators and teachers opportunity to make such visits. At the same time, the visits cannot be worthwhile unless a lot of prior planning takes place in terms of what the visitors will be alert to observe in their travels.

How a given program functions in keeping with a district's educational objectives and in the light of the written educational philosophy of its schools should be a prime objective in observing other operations.

In addition, as representatives visit other schools, they should ask the administrators of these schools what they would do differently if they were to plan the building all over again. Most administrators will respond honestly, giving their reasons for suggested changes. ●

When Should It Be Used?

Learning by Discovery

DAVID P. AUSUBEL

In Educational Leadership

LEARNING by discovery enjoys a proper and established place among the repertoire of accepted pedagogic techniques available to teachers. For certain purposes under certain conditions, this procedure has a defensible rationale and undoubted advantages. The issue, therefore, is not whether it should or should not be used, but for what purposes and under what conditions it should be used.

Speaking generally, problem-solving or discovery techniques are unnecessary and inappropriate for teaching subject-matter content, except when pupils are in the concrete stage of cognitive development (roughly covering the elementary-school years). During the concrete stage children are restricted by their dependence on concrete-empirical experience to a semi-abstract, intuitive understanding of abstract propositions. But even during these years, the act of discovery is not indispensable for intuitive (subverbal) understanding and need not constitute a routine part of pedagogic technique. The only essential condition for learning rational ideas during this period is the ready availability of current or recently prior concrete-empirical experience with the actual realities.

Thus, for teaching simple, new ideas, either verbal exposition accompanied by concrete-empirical props, or a semiautonomous type of discovery accelerated by the judicious use of prompts and hints, is adequate enough. When the new ideas to be learned are more difficult and unfamiliar, however, it is quite conceivable that autonomous inductive discovery enhances intuitive understanding, by bringing the student into more intimate contact with the necessary concrete experience, and with actual operations of abstracting and generalizing from empirical data.

During the *abstract* stage of cognitive development, however, the psychological rationale for using discovery methods to teach subject-matter content is highly questionable. Students now form most new

David P. Ausubel is Professor of Education, Bureau of Educational Research, University of Illinois, Urbana. Reported from Educational Leadership, XX, *(November 1962), 113–17.*

concepts and learn most new propositions by *directly* grasping higher-order relationships between abstractions. To do so meaningfully, they need no longer to depend on current or recent concrete-empirical experience. They are able to by-pass completely the intuitive type of understanding reflective of such dependence. Through proper expository teaching they can proceed directly to a level of abstract understanding qualitatively superior to the intuitive level in terms of generality, clarity, precision, and explicitness. At this stage, it seems pointless to enhance intuitive understanding by using discovery techniques.

It is true that secondary-school and older students can sometimes profit from the use of concrete-empirical props and from discovery methods in learning subject-matter content on an intuitive basis. This is so because even generally mature students still tend to function at a relatively concrete level when confronted with a new subject-matter area in which they are totally unsophisticated. But since abstract cognitive functioning in this area is achieved rapidly with minimal subject-matter sophistication, this approach to teaching course content need only be employed in early instructional stages.

DISADVANTAGES

To be practical, learning by discovery is unfeasible as a primary means of teaching subject-matter content because of the inordinate time-cost involved. It could only be justified on the grounds of psychological necessity or other unusual pedagogic advantages. If secondary-school and university students were obliged to discover for themselves every fact and principle in the syllabus, they would not progress much beyond the rudiments of any discipline.

Another disadvantage of using a discovery approach for transmission of subject-matter content is that children are notoriously subjective in their evaluation of external events. They tend to jump to conclusions, to generalize on the basis of limited experience, and to consider only one aspect of a problem at a time. Moreover, children tend to interpret empirical experience in the light of folklore conceptions that are at variance with scientific theories.

Finally, one might reasonably ask how many students are sufficiently brilliant to discover everything they need to know. Most students of average ability can acquire a meaningful grasp of the theory of evolution and gravitation, but how many can discover these ideas autonomously?

Discovery methods are primarily useful for evaluating meaningful learning outcomes and for teaching problem-solving techniques, appreciation of scientific method, and awareness of the sources of knowledge—not for transmitting subject-matter content. To ascertain whether students genuinely understand or have merely memorized a given abstract proposition, there are few better methods than to require them to solve problems involving applications of that proposition.

Apart from its usefulness in evaluation, the enhancement of problem-solving ability as an end in itself is a most important educational objective. Hence it is highly defensible to utilize a certain proportion of classroom time in developing appreciation of, and facility in, the use of scientific methods of inquiry and of other empirical, inductive, and deductive problem-solving procedures.

NOT A MAJOR FUNCTION

This is a far cry from advocating that the enhancement of problem-solving is the *major* function of the school. To acquire facility in problem-solving and scientific method, it is unnecessary for learners to rediscover every principle in the syllabus. Since problem-solving ability is itself transferrable, at least within a given subject-matter field, facility gained in independently formulating and applying one generalization is transferrable to other problem areas in the same discipline.

Furthermore, overemphasis on developing problem-solving ability would ultimately defeat its own ends. Its time-consuming features would leave students with insufficient time in which to learn the content of a discipline; and hence, despite their adeptness at problem solving, they would be unable to solve simple problems involving the application of such content. Knowledgeability, then, is a necessary but not a sufficient condition for successful problem solving.

A fashionable movement in curriculum theory today is an attempt to enhance the critical thinking ability of pupils apart from any systematic consideration of subject-matter content. An entire course of study is pursued in which pupils perform or consider an unrelated series of experiments in depth, and then concentrate solely on the inquiry process rather on how this process is related to acquisition of an organized body of knowledge.

A major difficulty with this approach, apart from the fact that it fails to promote orderly, sequential structure of knowledge, is that critical thinking can be improved only within a specific discipline. Countless research studies have confirmed the proposition that grand strategies of inquiry, discovery, or logical analysis are not transferrable across disciplinary lines.

A second significant difficulty with this latter approach is that its proponents tend to confuse the goals of the scientist with goals of the science student. They assert that these objectives are identical and that students can learn most effectively by enacting the role of junior scientists. Actually, however, the scientist is engaged in a full-time search for new general or applied principles in his field, whereas the student is primarily engaged in an effort to learn the basic subject matter in this field, as well as something of the method and spirit of scientific inquiry. ●

The New Superintendent and Human Relations

In Hints to the Beginning Superintendent of Schools

UNQUESTIONABLY the most common cause of failure for the beginning superintendent is error in the area of human relations with his associates.

People are sensitive, ambitious, have personal roles, and demand respect. The superintendent, therefore, should be a scholar in the field of human psychology and in the fundamental principles which bring about harmonious teamwork among those engaged in or interested in the enterprise of education.

The superintendent influences actions and decisions by others. His personality, professional competence, and devotion to education affect the behavior and attitudes of others. Thus his leadership helps others to contribute to the educational enterprise, since it is others who actually do the thousands of specialized tasks in the educational effort. He gives encouragement to, opens doors for, and receives advice from his professional colleagues.

Above all, he finds ways to build staff morale. Since morale rests primarily on satisfaction derived from one's work, the administrator's attention is ever centered on the professional successes and day-by-day achievements of his colleagues. The more technical the task, the greater the need for a democratic climate; the more complex the professional role, the greater the need for occupational satisfaction on the part of his colleagues.

Since teaching is a profession, each classroom teacher and each subject specialist, as well as those designated with administrative titles, are leaders in their areas of the educational program. Wise superintendents will avoid trying to direct them authoritatively or dogmatically. Nor can the superintendent demand goals and standards which are inconsistent with their skills and purposes. Therefore, the administrator, particularly the man new on the job, should shun overt executive direction; rather, he should help, guide, lead, and clear the way.

If an administrative staff mem-

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ber or teacher is inadequately trained and cannot assume professional status, the administrator's role naturally becomes one of being an understanding supervisor and teacher. But the wise administrator uses his most considered judgment to keep his professional role from conflicting with the rightful professional role and prerogatives of his colleagues in the classroom.

The beginning superintendent as well as the experienced one should study the total personnel in terms of balance. If there are apparent weaknesses in certain areas, he should deliberately plan to strengthen those areas when new personnel are brought in or when replacements are made.

A CHECK LIST

It may be advisable for a beginning superintendent to have a check list. The following could be among items comprising such a list:

√ All people have personal traits and values peculiar to themselves. These should be considered as sacred as the general values held by the total group. Care should be taken not to inadvertently treat such unique values with disdain.

√ When one delegates the right to assume responsibility, he also delegates the right to make mistakes. Sharing responsibility as a staff, delegating tasks according to planned arrangements, depending on the authority of knowledge whenever possible and on the authority of law where orderly process requires rules or lines of authority, and establishing the virtue of accountability in mature human relationships are considerations involved in releasing the power of the entire staff. Stimulating and releasing the potentialities of staff resources and abilities is the first principle of sound personnel administration.

√ Support colleagues who are conscientiously performing their duties, even when pressure from opposing forces is violent and powerful.

√ Explain to the staff early in the year that no revolution is pending while remembering to encourage experimentation.

√ Every member of the staff, every member of the board, every child in the school, every patron of the school, is a person in many respects like you. Each one has a deep-seated desire to be recognized for some worthy accomplishment, to be secure against needless humiliation, and to maintain a sense of selfrespect and human dignity. Outstanding achievement should be recognized and credit given where credit is due.

√ In dealing with difficult personnel problems, the superintendent can afford to assure the teacher's personal security even to the extent of having the discussion take place in the teacher's room rather than in the superintendent's office.

√ Dogmatic pronouncements are generally vulnerable and give the appearance of an authority to be feared rather than respected. When addressing the faculty on the first occasion, do so as a searcher after truth rather than as one who has already found it. The address should be complimentary to the roles the total staff plays in the enterprise.

√ Most school systems have patterns of power structures and patterns of leadership. Early conflict with these should be avoided; rather, ways should be sought to utilize them for the good of the school. As with any group, there are those who ride hobbies and have deep prejudices on what the schools should do. Beware of committing support to them prior to a comprehensive understanding.

√ Other members of the professional staff can often make a better speech on many subjects than the superintendent can. When they are used as a substitute, the superintendent is relieved for more important duties, and the staff members grow in stature.

RECORDS, GIFTS, AND CLUBS

√ Make sure that careful minutes of school board meetings are kept and promptly recorded. Remember that close social or business association with individual board members is ill-advised and beware of accepting gifts from board members, vendors, or staff members.

√ Don't be hasty in joining civic clubs or social organizations—know the lay of the land before stepping.

√ Do not become involved in intimate social activities with selected members of the staff. Such associations almost always are interpreted by other associates as special privileges.

√ At the opening of each school year, the safety and health of children and staff are a first consideration. Transportation and street safety, playground precautions and supervision, the insurance program, rules and procedures for fire safety, civil defense measures, emergency school closings, health examinations for pupils and staff, communicable disease control—neglect of these details may result in anxious moments in the future.

√ Review the school calendar.

√ Good taste and good judgment dictate that the new superintendent resist all temptations to make uncomplimentary remarks about his predecessor or about any member of his staff.

√ Do not overlook resources in nearby colleges and universities.

√ Do not become involved in power politics, write testimonials for commercial products, transmit confidential information by telephone, and do not make promises unless confident you can keep them.

√ Work closely with local police and juvenile courts so that children and youth involved in minor difficulties are protected from injustice and undue public censure.

√ Remember that your education is incomplete. Plan carefully so that you have time, opportunity, and resources to read publications of depth, including recent findings of research, and to engage in workshops, study groups, and professional meetings. ●

Procedures in Handling

The Problem Child

ORA LEE CHAFEY

In Arizona Teacher

THE problem child is, as a rule, merely a mismanaged child. It is true that the basis of a given child's misconduct may be physical, in which case he should be turned over to the school nurse and the family physician for treatment. If, however, physical examination shows him to be normal in respect to sight, hearing, speech, the vital functions, and nervous reactions, then it's a good bet that all he needs is a little intelligent handling.

No teacher should permit himself to be biased against a pupil because of some other teacher's experience with the child, or because of some previous record. "Let bygones be bygones," should be the motto of every teacher facing a new class.

He will do well to say as much to the pupils—to tell them, "We are all starting from scratch. If you will do well by me, I'll do well by you. If I think you are not behaving properly, I shall talk to you about it. On the other hand, if you think I haven't done the right thing by you, in any respect whatever, come and tell me. We'll talk it over; we'll iron it out. After all, we are all seeking the same goal, and we should all pull together."

I submit that the most hardened "problem pupil" in the class will react favorably to such an attitude, provided the attitude is sincere and not just talk.

I think it safe to say that all children without exception want to succeed. If a child is not succeeding, he is by that much an unhappy child and needs help rather than censure. He may have been unsuccessful for a number of school years. If so, he has probably developed some very undesirable habits. He may be sullen, lazy, suspicious, a braggart, or given to baiting teachers, but what good is a teacher who cannot cope with such tricks in an unhappy, unsuccessful adolescent?

The first thing to do with such a pupil is to assume, even in the face of misbehavior, that he really does wish to do the right thing. Tolerate his meanness, his unsocial attitude for a while, and in the meantime commend him publicly for something, even if you have to stretch a point to do it. Give him the heady feeling of success—of being one

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Ora Lee Chafey is a member of the faculty, Supai School, Scottsdale, Arizona. Reported from Arizona Teacher, *LI (November 1962), 15, 27.*

of the normal group of pupils not a pariah. Instead of allowing him to go on, always getting unfavorable comment, keep him doing something for which he can receive approval.

There are, I believe, certain psychological truths which the successful teacher must keep in mind. He must remember that every pupil, at least in the secrecy of his own heart, really wants these things:

To have the liking and the respect of his teachers and fellow pupils;

To excel in some field so that he may have a basis for personal pride;

To do at least passing work in all required subjects so that he may not have to feel inferior;

To be accepted as a member in good standing in his social group.

To these basic wants may be added certain important needs, of which the child may be unaware:

Help in discovering his own talents and abilities so that he may establish for himself an intelligent vocational goal;

To be associated with some understanding adult who has an unshakable faith in the child's essential decency;

To find in his elders a tolerance for, and patience with, the vagaries of adolescence;

To discover (and these he should certainly find in the lives and the characters of his teachers) certain fine ideals and high standards toward which he may aspire.

Any teacher who will help his pupils to achieve those four basic things which every adolescent wants, and who will also supply them with the four basic needs listed above, may count himself a good teacher, and by the same token he will have little difficulty with "problem pupils." ●

● All children wear a sign which reads, "I want to be important NOW," and many of our juvenile delinquency problems arise because nobody reads the sign.—*Dan Pursuit,* Youth Studies Center, University of Southern California.

● When a kid misbehaved 50 years ago to get attention, he really got it.—From *Grit.*

● A first grader received a *D* on a paper which was definitely not up to her regular standard. She told her mother, with tears in her voice, "Mother you might as well forget it." Asked what should be forgotten, she replied, "Forget college. It's all off, for I'm not even going to make it through the first grade."—From *NEA Journal.*

● The old-fashioned parent is one who believes that stern discipline means exactly what it says.—From *North Carolina Education.*

The Problem Sounds Familiar

Handwriting

In
The Scottish Educational Journal

THE comparison between the copperplate writing of the past and the illegible scrawls of today is part of the nostalgic references currently being made to the hey-day of Scottish education when the three R's predominated. The conclusion is drawn that there has been a general deterioriation in handwriting. It is generally forgotten, however, that most last-century documents were written by the small sample of the population who were educated. Today it is expected that all can be taught to write. Also, the writers of copperplate, living in a more leisurely age, were seldom called on to write at speed.

Three factors have been largely responsible for the breakdown in handwriting: Pupils were seldom if ever trained to write at speed; the pens used were difficult to master; and the style taught did not lend itself to acquisition of a fast, legible, and utilitarian hand.

"Practice makes perfect" is the principle generally accepted in teaching handwriting. It is not surprising that regular practice in the copybook often produced a good writing style with primary pupils. It immediately broke down, however, when put to the test of speed in the secondary school. Even if a good hand survived the secondary school, it frequently broke down in the furious note-taking in the university lecture room—something for which students had no training. Medical students in particular seemed to suffer, and the handwriting of doctors has become by tradition almost indecipherable.

Few people today can write well with the old-fashioned pen nib. The fountain pen, in ball-point form, is now almost universally used but is not yet accepted by all teachers. Unless it can be shown conclusively that it prevents acquisition of handwriting skill, it ought to be permitted in schools.

There is still controversy about the style of handwriting to be adopted in the schools. The case for some form of script writing seems to be unanswerable. It is easier for young children than cursive, it can be readily developed into a cursive style, it lends itself to writing at speed, and individuals can develop a characteristic style once the basic forms are mastered. However, there is need for reseach to establish the best *form* of script writing.

As with reading, it formerly was

Reported from The Scottish Educational Journal, *XLV (November 9, 1962), 809–10.*

assumed that the basic element in writing was the letter, and each letter had to be mastered before words and sentences were tackled. This has proved erroneous. Writing is essentially a matter of movement. The slow, meticulous copying of letters is not the best method of starting to teach young children to write. The making of patterns, which include the motor habits of each letter and each combination of letters, must be practiced.

Many more pupils now write with their left hand, as teachers no longer compel dominantly left-handed pupils to write with the right hand. Right-handed teachers are naturally at a disadvantage when teaching left-handed children, but it is in the child's interest that he should be allowed to write with the hand that comes naturally to him. Special pens have been designed for left-handed children, and the ball-point pen is of great advantage to such children.

EQUIPMENT

Greater attention is now paid to making school equipment to suit the child's needs. The flat-top desk has been replaced with a sloping surface, there are unspillable inkwells (and even these are no longer necessary with the ball-point pen), and most modern classrooms are well lighted. Investigations still have to be conducted, however, concerning the ruling of the paper on which the child learns to write. Certainly the many different types are no longer necessary. There are those who claim that the child should be taught to write from the start on blank sheets. Further investigations should be made before any dogmatic statements can be made on such points.

A MAJOR DIFFICULTY

A major difficulty in the reform of the teaching of handwriting is that the teachers themselves must change their style. Pupils cannot be expected to write in a different style from what they see on the blackboard. This is not easy to achieve, but teachers today have come to realize that much of what they have learned is out of date. Arrangements must be made to ensure that facilities are available for instructing teachers in the findings of inquiries into handwriting, in the new styles which can be most usefully adopted by children, and in the methods by which they can be taught.

Handwriting is important. Very few children cannot be taught to write accurately, legibly, and at speed. A high standard in handwriting should be demanded by all teachers and not merely by the class teacher in the primary school. As with speech, every secondary-school teacher has a responsibility here, and illegibility and careless writing should be corrected wherever they occur. All teachers must show a good example, and pupils must be taught that illegible writing is not only a result of laziness or indifference but shows a lack of courtesy on the part of the writer. ●

A Proposal for Colleges

Why Have Teachers?

HENRY MOULDS

In The North Central Association Quarterly

CONTEMPLATING the possibilities of instructional television on the college level, I have been willing to consider the next step: doing away with the teacher altogether in *general requirement courses,* the courses that get the heavy enrolment.

Henry Moulds is Professor of Philosophy, Kent State University, Ohio. Reported from The North Central Association Quarterly, *XXXVII (Fall 1962), 171–73.*

I am serious.

Nearly all high-school seniors want to go to college today and more and more graduates are going. They have been sold that college attendance is a must.

If every high-school graduate insists on entering college, let him enter. Let him register. Not for class attendance, but for reading. Then let him take the examinations on the appropriate subject matter. If he passes, good; if not, let him try again after due time for meditation and further study. But he does not attend class, not in the case of the general requirement courses with the vast enrolments for which television is the apparent remedy.

Let the affected departments of the overrun university prepare or select appropriate syllabuses, texts, assignments, and study questions. Let them construct (and periodically reconstruct) examinations. Let them be administered en masse. Let those who would be teaching be available at regularly scheduled hours for consultation with any readers having problems they would like to discuss. Assign students for that purpose to staff members. Unless student nature changes radically, few will take the trouble to walk the few steps to the professor's office.

We have always had teachers; we have not always had books. Today, books are available in variety and abundance. They are attractive, well written, interesting, and relatively cheap. Books are sold with an increasing variety of study aids—not to mention the manuals on "How to Study," even "How to Study" a particular subject.

It may be objected that my strategem is so extreme as to create a different problem: college professors *in surplus*. That is not correct. We cannot spare a single one of them. At least not the real teachers among them.

My innovation is to permit them to teach. Who that faces 300 students in a lecture hall, or, worse, that faces a television camera, thinks he is teaching? There is only one model of the teacher and we must stick to it as far as possible. It is the man or woman with something to say that cannot equally be found in the assigned text and who is in a small-group situation where he can answer a wide variety of questions and lead a stimulating discussion.

Faced by the enrolling flood and the apparent unwillingness of capable people to train for the academic profession in sufficient numbers, those of us that remain must make an orderly retreat and regroup at the level of "advanced" work. Here, beyond the general requirements, where classes can be made small, we can teach again, and there will be work enough for all. An advanced course presumably calls for student discussion and professional interpretation. Neither are properly, conveniently, or effectively handled en masse.

Consider the savings secured by my proposal. Enrolment in general requirement courses (philosophy, history, psychology, etc.) at the freshmen and sophomore levels would be limited only by the capacity for seating examinees. And none of the time-consuming, nerve-wracking preparation and delivery of televised lectures.

It will be said that the instructor can make the material more interesting. He dramatizes the subject. Yes, but books can dramatize a subject too. Anyway, students are coming for an education, not to be entertained. Better entertainment is readily available elsewhere.

The practice of allowing *top* students to meet prerequisites simply by passing examinations has been a growing phenomenon of higher education. It should have been the other way around. So long as society does not provide the inducements to attract sufficient numbers of trained people to provide the optimum instruction for all who wish to enrol, then the public has no right to expect the schools to provide the optimum instruction for those who can least profit from it.

The type of student that is chosen for Honors Programs should not be allowed to pass a course by examination. For he can profit without limit from the "advanced course" type of teaching in general requirement courses.

To get full benefit of the savings potential with my proposal we must act soon. For the day is not too far removed when even advanced courses will be larger than the standards of good teaching permit—unless perchance far larger numbers can be attracted to the teaching profession. ◆

TOO many large universities "slight or ignore" freshmen when it comes to assigning their best instructors. Introductory courses are vitally important; they should be taught by outstanding professors.—*Thomas H. Eliot,* Washington University.

Should Counselors Mete Out Punishment?

High-School Counselors in Disciplinary Situations

FRANK A. NUGENT

In The Bulletin of The National Association of Secondary-School Principals

ALTHOUGH counseling theorists take unequivocal stands that counselors should not mete out discipline, there is a discrepancy between theory and practice. Some administrators perceive one of the counselor's functions to be judging behavior and administering punishment in disciplinary situations. Such assignments change the role of the counselor drastically. He loses a nonthreatening relationship which is the core of counseling. If the counselor gives this up, he is no longer operating as a counselor.

Counseling theorists contend that counselors can play a constructive role in disciplinary situations by helping the students to control behavior and to make productive changes in attitude. Improvements in attitude result not merely by setting limits and penalties, but, in addition, by offering the students the opportunity to understand the reasons for their behavior. Counselor educators believe that this self-understanding can best be accomplished by students being able to express themselves in a counseling situation where no warnings, penalties, or reprisals are involved.

Administrators who advocate using counselors as disciplinarians usually justify these assignments on the basis of educational theory or on administrative practicality and expediency. In drawing from educational principles, the paradox of assigning counselors to disciplinary roles is defended on the grounds that the counselor knows the student best; the counselor is best trained to handle behavior problems; that one person can work more effectively with the whole student; and that parents discipline their children and still maintain good relationships.

A basic fallacy in this defense emanates from the assumption that there is no difference between the student's relationship to counselors and his interaction with teachers or administrators. The unique nature

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of counseling is not recognized. When the counselor becomes another authority figure, he loses one of his most effective tools. He gives up the opportunity of serving as a sounding board to permit acting out of the student's aggressive feelings in the counselor's office without fear of reprisal, a factor which is often essential if any sustained change of attitude is to occur.

Similarly, the importance of working with the whole child has some basis in educational theory. However, if it is accepted that counselors offer an additional service to students through which the student is offered a relatively permissive relationship, different from those with teacher and administrators, then it appears important that counselors not handle disciplinary measures. Delegating authority to counselors augments the administrative staff; a different service is not being offered.

PARENTS AND COUNSELORS

The analogy that parents discipline their children and still maintain good relationships is more appropriate to the teacher-student interaction. A chief problem of teenagers, delinquent or not, is difficulty in dealing with authority figures. When the parent-child relationship is strained, the parents are often persons who can be of least help. Outside aid from a relatively objective individual is often needed by both parents and child. This outside help is often a counseling relationship.

For administrative expediency, disciplinary functions are often justified on the basis that the number of disciplinary cases drop when counselors assume disciplinarian roles; that disciplinary problems burden administrators and interfere with other duties; that the onerous duty of discipline prejudices students against administrators so that the counselors should share in it; and that counselors are not trained adequately either to do effective counseling or to handle the intricate staff interaction required.

The decrease in disciplinary cases after counselors become punitive agents is a most telling argument. In reality, however, it is perhaps the least logical. In this framework, the counselor assumes the principal's or vice-principal's role under a different name. By extending this administrative function, certainly disciplinary cases would drop. But the characteristic relationship of the counselor and counselee is sacrificed, and the hampered effectiveness of the counselor in working with the student body is ignored.

TWO ALTERNATIVES

The point that administrators spend undue time in the unproductive activity of disciplining students cannot be dismissed lightly. But two alternatives seem more logical than extending these duties to the counselors. Perhaps the administrative staff needs enlarging, but more probably the counseling staff's unique contributions need to be enhanced. Their emphasis on constructive change within the individual should help to decrease the number of recurrent disciplinary problems. Also, this change in attitude about discipline would help to diminish negatives feelings in students about disciplinarians. The administrators, by offering an additional service to the nonconformer, thus makes any disciplinary action a part of a constructive activity for the student. In this sense, labels like "hatchet man" become less applicable.

There can be agreement with administrators that many counselors are not sufficiently trained to handle disciplinary situations beyond a superficial level, nor are they skillful enough to handle delicate staff interrelationships. However, the alternative of delegating inappropriate responsibilities to counselors, in addition to distorting the students' perception of counselors, also can lead to serious staff friction.

Hostilities can arise as teachers, administrators, and counselors attempt to manipulate a situation so that one or the other has to handle punitive measures. Instead, until counselors are more fully trained and more carefully selected, it would seem more profitable to instill in the student body the attitude that the counselor is a nonpunitive agent who serves in a unique but integrated way with the staff. Then, the students' perception of the counselor as a nonpunitive individual can be fostered as teachers, administrators, and counselors begin cooperative, constructive work with discipline cases. There can then be hope that students, sensing pressure, would see counselors on their own initiative before becoming disciplinary problems. ●

● The number of juvenile delinquency cases dropped last year for the first time in 13 years, the Children's Bureau of the U. S. Department of Health, Education, and Welfare has announced. The decrease was 1 percent across the nation—and this in a year when the child population was increasing by 3 percent. The Bureau hopes that figures for 1962, the first full calendar year in which the President's Committee on Juvenile Delinquency and Youth Crime has been in existence, will show an even larger improvement.—From *The PTA Magazine.*

● Don't laugh at youth for his affectations; he is only trying on one face after another to find his own.—*Logan Pearsall Smith.*

● I advise that we be a little rougher on our kids, ignore them more and avoid them as much as we can, and they may grow up to be slightly less criminal than they are now. —*Al Capp.*

Will Your Graduates Suceed in College?

ERNEST HAYES

In School Management

GIVEN enough facts—and a basis on which to interpret them—a counselor can make a fairly accurate judgment about probability of success in college for a high-school graduate. The trouble is, there's little agreement about which facts are—and are not—pertinent to college success.

A research project completed recently at the University of Portland, Oregon, has shed some light on the problem. In a five-year study of 1,500 entering freshmen, seven factors were found to be unusually good indicators of success in college. Two factors often used by admissions officers and counselors were found to have little predictive value.

The study revealed that grades in English are the best predictor of success in college whether the program was in business, science, engineering, or liberal arts. Students weak in communication skills have great difficulty in college.

An interesting point brought to light by the study, suggested by a group of high-school principals, was that the ninth-grade English mark was low in reliability. This was investigated. Three different samples substantiated the fact that, when evaluating the student's potential for college success, the ninth-grade English score should be ignored. It lacks consistency with the scores in the next three years bcause of variety in course content, the rigor of the course, and the immaturity of the students.

Second to grades in English, the Scholastic Aptitude Tests (SAT) of the College Entrance Examination Board proved to be the next most valuable predictors. However, the verbal score is superior to the mathematics score. In predicting success in college, the two should not be added to form one score, as this would reduce the predictive value of the tests. Unfortunately, this is a common practice in high schools and colleges.

In our study we became aware of too many contradictions between high-school records and college entrance tests. It was startling that the high schools usually offered no

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explanation, and only rarely were such students retested.

If an applicant to the University of Portland has a good or better high-school record and *low* test scores, we request retesting of the applicant. On retesting, increases in scores of as much as 100 points have occurred. A good student should not suffer from an accident of testing. This can be avoided by such precautions as:

Adequately preparing students to take the tests; understanding what the scores mean and imply; determining if the test results are reliable by comparing them with other data on the students, especially grades; and retesting students when a large discrepancy seems to exist.

Another important predictive device for determining college success is merely counting the number of high-school semesters a student has in mathematics, science, and foreign languages—with no consideration for general science, general mathematics, and the first year of biology. The first three are usually taxing on the intellect and demanding of students in terms of ability to grasp symbols, concepts, and abstractions.

Due to the mistaken concept that there is no correlation between high-school studies and college success, too many college applicants have an "unacademic" senior year. Many college-bound seniors elect an easy last-year program filled with student activities and with few academic courses. Many of these students have difficulty in handling the change of pace that comes with beginning college work.

While many colleges prefer applicants who show an interest in extracurricular activities, a solid academic program with good grades is still the best way to gain admission to and success in college.

COURSE LOAD

In the matter of class load in college, the study revealed that the number of course hours carried has a differing influence, dependent on the academic aptitude of the particular student. The brilliant student with top high-school grades tends to do poorly with an overload in college. Indications are that the excellent student needs some free time for independent study, and registering for additional courses above the regular load lowers his probable success.

For the "B" student, the course load does not seem to be a factor.

However, the average-to-poor students do progressively poorer with *reduced* loads, a practice often mistakenly followed to help such students. These students profit from classroom instruction more than from independent study. A "C-minus" student with only 10 hours of study is almost doomed to failure.

It may be wise for high schools to study this finding. While the public clamors for more work for the gifted student, indications are that it is the "plodders" who really need constant supervised studies.

The study also substantiated that, with all other factors being equal, women tend to be more successful than men in their freshmen year at college. The difference was significant—about .20 of a Grade Point Average (GPA). The higher grades achieved by women in college appear to be a follow-up of the higher grades they receive in high school.

Among students of similar aptitudes and high-school grades, a difference in success due to the type of college program a freshmen selected was found to be a factor. It appears that students need a higher academic aptitude to succeed in the professional areas. From most difficult to easiest, the order was: engineering, science, business, and liberal arts.

The study showed that students on academic probation after the freshmen year in engineering and science do not continue in these areas. Most of the "better" probationers transfer to business or liberal arts and graduate; the rest leave college.

In view of these facts, a counselor should point out to a marginal student the greater aptitude needed for the sciences and engineering and that his chances for success are greater in the nonscientific areas.

This five-year study revealed that no correlation existed between the size of a high-school graduating class and a student's success in college. The size of the class was checked in two ways—above or below 100 students, and the actual size. In neither case was there a significant correlation with freshmen success in a range of class size from 10 to 500 high-school seniors.

The study also established that there is no correlation between a student's expressed vocational goal and college success. Moreover, on a two-year follow-up to determine academic mortality, the number of dropouts was about equal for students listing a vocational goal at time of registration and for students marking "undecided." It appears that there is no need for concern when high-school seniors fail to set vocational goals. The chances for success in college for such students are no poorer than for the person who has been sure of what he wanted to be since childhood. ●

How to Achieve Success?

- It is tragic that many people feel they achieve status by *what they are in,* like a new car, new house, or a new suit, rather than *what is in them,* like intelligence, knowledge, ability, or character.—*Donald D. Quinn,* Fresno, Calif.

- The trouble with most of us is that we would rather be ruined by praise than saved with criticism.—*Elmer Lesterman.*

Renewed Interest

Montessori Education Today and Yesterday

ALICE BURNETT

In The Elementary School Journal

AFTER 40 years of limited concern, there is a renewed interest in Montessori education in North America, a method of education which, devotees claim, develop readers at four, writers at five, and parsers at seven year of age.

Evidence of this renewed interest is found in the number of published articles, in Montessori classes being formed in schools in several major cities, and in the recent book, *Learning How to Learn: An American Approach to Montessori.* Nancy McCormick Rambusch, author of the book and headmistress of Whitby School, Greenwich, Connecticut, is the principal proponent of the new interest in Montessori education.

What is the background of the Montessori movement? Marie Montessori, originator of the unique method of teaching children from three to seven, actually was trained in medicine. She earned the first M.D. awarded to a woman by the University of Rome. Her work with retarded children led Dr. Montessori to develop techniques and materials for their education. These children advanced so dramatically that she became interested in using her methods with normal children. She was provided with that opportunity in 1907 when she was employed by a building concern to organize a school for young children in a slum housing development in Rome.

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The first school was called a *casa dei bambini.* It was soon followed by others and, eventually, these "houses of children" became world famous.

The children remained at school all day. The methodology relied on a "prepared environment" and a sequential order of learning activities. Selected materials, equipment, and didactic apparatus were basic elements of the environment. Children had separate work areas in a flexible room arrangement. The role of the directress was largely tutorial. First, she showed the correct use of the apparatus, after which "auto-education" and "selfcorrective" learning were to take place.

Basic work in the Montessori method was directed toward promoting sense experiences, with sense education providing a foundation for children's learning in reading, writing, and arithmetic. Materials for sensory learning include sandpaper shapes, rods of beads, graded wooden blocks, and sets of geometric forms. Specific exercises and procedures with the materials precede reading and writing. When children successfully completed work in a Montessori school, they could read and write in script, name continents, diagram sentences, and handle complicated number problems.

Montessori methods remain relatively unchanged today. "Real" Montessori equipment comes from recognized sources; schools and teachers are authorized by the official organization—the Association Montessori Internationale, whose director is Mario Montessori, foster son of the originator of the approach. Headquarters for the organization are in Holland, where also is located the factory for producing Montessori equipment. U.S. toy manufacturers supply their versions of some Montessori apparatus, which are frequently called "educative" toys. Some of these have been on the market nearly 50 years.

When Montessori methods were being developed, they seemed very different from existing teaching-learning procedures. That such young children could learn for themselves, given the proper materials, was a startling idea.

The teacher's role was quite new: she demonstrated correct procedures with the materials; she talked very little, and she did not plan the children's activities. At that time, the turn of the century, teachers in infant schools, kindergartens, and primary grades considered it their duty to plan for specific group learning. The idea that a child in school should select his own activity—quite apart from the activities of his classmates—was almost revolutionary.

Publicity on the progress the children from the slums were making in the Montessori school brought visitors from many parts of the world. Some remained to study under Dr. Montessori and returned to their own countries to open Montessori schools.

In the United States, interest in Montessori teaching reached a peak just before World War I and then declined.

In 1912 William Heard Kilpatrick of Columbia University Teachers College visited Montessori in Rome to see Dr. Montessori and to examine one of her schools at first hand. On his return to this country he was so frequently called on to discuss his findings that he published a critical evaluation, *The Montessori System Examined.*

Kilpatrick valued the Montessori approach for the considerable personal classroom liberty it offered compared to the Lancastrian or monitorial system. But he refuted the authoritarian dictates of precise procedures and unalterable sequence. Under the Montessori approach, children were free to choose activities only from among those to which they had been introduced. Once a child settled on a they felt in teaching showed a slight tendency, but too small to be significant statistically, to suggest that where strain was considerable, classes were large and class-instruction hours longer than where strain was moderate.

Large district size also seemed to be related to feeling strain. The average class was large in large districts and small in small districts, but the reverse was true of the number of hours spent in class instruction. Appparently the feeling of strain is the result of many forces. Surface measures of teaching load are only limited indicators of the total load.

HOMEWORK

Correcting homework and tests, planning and preparing for each day's classes, and conferring with or about individual pupils are essential parts of the instructional services. For the average teacher, these duties take half as much time as class instruction. The survey showed that these related instructional duties took about 25 percent of the elementary-school teacher's time (11.9 hours per week) and about 29 percent of the secondary-school teacher's time (13.3 hours per week). The ranges were wide; a few teachers reported less than five hours and a few reported 30 hours or more per week.

Of the three major types of activities analyzed (classroom instruction, related instruction, and miscellaneous assignments), related instructional work out of class seemed most directly related to the teacher's estimate of his teaching load as being reasonable or heavy. Teachers regarding their load as heavy or extreme reported an average of 14.0 hours per week for related instructional duties, 22 percent above the 11.5 hours for those reporting light or reasonable loads. Those who reported feeling considerable strain reported an average of 13.8 hours per week given to out-of-class instructional duties, compared to the 11.7 hours reported by those feeling little strain.

EXTRACURRICULAR WORK

Miscellaneous out-of-class assignments (monitorial duties, records and reports, faculty meetings, coaching, and sponsoring clubs) took 15 percent of the teacher's working time in elementary schools and 20 percent in the secondary schools.

Most frequently reported was work connected with records and reports for the teachers' own classes. The mean time for this item was 1.6 hours per week; slightly more in elementary school, slightly less in high school.

An item on meetings was second in frequency but relatively low in time required per week, averaging just under an hour.

Also high in frequency was monitorial duty, reported by 91 percent of the elementary-school teachers and 65 percent of the secondary. The average reported was 3.1 hours for the former; 2.2 for the latter.

For those teachers regularly eating lunch with pupils because it was a custom or requirement of the school, the time was included in monitorial duties. This practice was reported by 37 percent of the elementary-school teachers and 14 percent of the secondary-school teachers.

Three items that were low in frequency but time-consuming when reported were found chiefly in the secondary schools. Forty percent of the secondary-school teachers had study-hall assignments, which required a mean of 4.3 hours a week; 17 percent coached athletics, requiring a mean of 5.3 hours a week; and 11 percent did formal counseling on a definite schedule, with a mean of 2.3 hours per week for the assignment.

There was a wide range reported for total working hours. The mean was 47.3 hours. About 11 percent reported a total time of less than 35 hours a week; and 7 percent worked 65 hours or more. Almost 20 percent reported weekly schedules of 55 hours or more.

Disregarding comparisons with other professional workers, the evidence seems clear that the typical working day for teachers is more than nine hours, a schedule to tax the most vigorous physique. For more than half of that time, the teacher is responsible for maintaining a dynamic working situation in a group between 25 and 30 lively young people. Even for the teachers who appear most relaxed and secure, an enormous output of emotion, intellect, and social skill is needed to maintain an effective teaching and learning situation. ●

● THE second-grade teacher finally sat down at the cafeteria table after her lunch had been interrupted three times by pupil mishaps and misbehavior. She bowed briefly, head in hands. Asked by the principal if she were ill, she replied, "Oh, no, I'm just asking the Lord to give me patience to endure my 28 blessings."—From *Mississippi Educational Advance.*

● Here is a letter of resignation of a Philippino teacher addressed to "The Honorable School Board of Manila": "This are my resigning. The hours are many, the work are many, the children are very, very much, and the pay are few. All the time the principal are making love to me—to which I reply, Oh, not! Hoping you are the same, Sincerely yours, ———." —From *Arizona Teacher.*

● A coffee break for students and teachers is being tried out in junior- and senior-high schools in Ainsworth, Nebraska. Students take a 10-minute break every morning without supervision, enabling teachers to take the same period.

Change That Last Sentence to . . . !

ELLIS J. JONES

In The Journal of Business Education

CHANGE that last sentence to . . .!"

With these familiar words, the class of budding secretaries proceeded to cross out and start over another of the many mutilated sentences in the dictation for the day. While rewriting the sentence, their thoughts were probably on such things as "He is certainly talking softly today!" and "I wonder if my boss will pace back and forth as much as he does!"

If this isn't happening in terminal shorthand classes, it should be. The instructor should do everything possible to prepare students for business offices. The course should include preparation for realistic office-style dictation, even to including an occasional experience with a dramatically dull, demonstratively devious, deplorably dynamic, disgusting dictator.

Office-style dictation is simply dictation of material in a simulated office style, meaning that the note-taker may be called on to take dictation under one or more handicaps.

The students in a terminal stenographic class usually become accustomed to a steady and continuous dictation rate. This is necessary to build basic writing speeds. Timed dictation, however, is a rarity in the business office. Therefore, the stop watch should not be used during an office-style dictation exercise.

The material should be dictated as though it were being composed on the spot. The rate, therefore, should change: two or three sentences at a rapid rate; pause, as if thinking; dictate slowly, as if thinking; speed up; pause; dictate rapidly, etc. Students may flounder at first as the rapid sentences nearly overwhelm them. But they will soon adjust. If they miss the wording, they can be taught how to interrupt *diplomatically* before the dictator forgets the train of thought. They can be taught to develop judgment in deciding whether to interrupt immediately or to wait until the end of the letter.

When the class has become accustomed to variations in dictating speed, they should learn to adjust to changes in material. "Change that last sentence to . . ." repeated several times will result in messy notes, but the students must record the dictation exactly the way the

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dictator wants it. At intervals, students should be asked to read back a sentence or paragraph. The instructor will then know if they are getting the dictation. This practice also provides them with opportunity to check their notes. It is also common business office procedure.

Once the students have adjusted to changes in speed and changes in material, then the instructor should begin moving about the room as if it were necessary for him to pace as he thinks. The class has probably heard him dictate from one location long enough.

Probably the only sound in the class has been the instructor's voice or the voices of students. It will not always be like this in an office. An interval timer can be set to simulate the ringing of a telephone. When the timer interrupts the dictation, the students should be taught to use this opportunity to check notes, insert punctuation, write out certain words, etc. Then, "Where was I, Mary? Would you read the last sentence?" helps everybody regain the mood, and the dictation proceeds.

The telephone may not be the only distracting noise. An electric calculator may be clacking away nearby or a caterpillar tractor may be breaking ground for a new building. Opening the classroom window to let in the noise of a power lawnmower will simulate such distractions. The students may never have it so difficult in an office, but it is not assured.

Other devices include having students leave the comfort of their seats and have them take notes standing up. This is an occasional requirement for many secretaries. Also, the stenographer may be asked to take a quick letter when there is no notebook handy. Instead of asking the dictator to wait, she should reach for the nearest available writing material and start "taking." It is very interesting to watch a class transcribing mailable letters from notes written in the margins of newspaper pages, across the bottom of the want ads, or in between the comic strips.

Office-style dictation is an interesting, rewarding challenge. It provides a final polish before students venture forth to first positions. It provides practice in reacting properly under fire and it helps to build confidence. It can be overdone. Too much office-style dictation may curtail time which should be spent on other objectives. But judicious use of the technique will make terminal shorthand classes more interesting and will help the students to enjoy hearing "Change that last sentence to . . .!" ●

A TYPEWRITER with 10 keys laid out in two semicircles, which has been developed at Cambridge, England, is said to require one-third less time to develop speed. Each letter is obtained by pressing two keys—one with each hand.

much they could put into an 11-minute film. Some of the new films present a scientist (not an actor) conducting a great experiment and reporting it in spoken words. Some are presented so carefully that pupils can make and record their own qualitative and quantitative observations. Other films show great scientists explaining and illustrating their work. Such films will probably be available to schools in increasing numbers.

BASIC EDUCATION FOR ALL

From science experiences as preparation for secondary-school science to experiences for the basic education of all pupils.—Few people question the need for a scientifically literate citizenry, and school leaders without organized science programs are looking for ways to provide science courses. This change is definite, but how best to guide it is open to debate; however, scientists working with other knowledgeable people are certain to find acceptable ways.

From science as something to be learned from books to science growing out of a series of experiments.—Although teachers find experiments useful and pupils find them interesting, something besides experiments seem necessary to a science program. The change toward grade placement of experiments within a larger framework promises to continue.

From a program based on topics, limited concepts, and experiments to one based on a more fundamental frame of reference.—Outstanding scientists interested in science programs for elementary and junior-high schools say that covering topics and doing experiments are not science. The great efforts now being made to formulate strong science programs will give rise to different frames of reference that will present improved views of the scope and sequence of science programs.

From great attention to uses of science including technology to more attention to science.—General-science courses, many leaders say, have given too much attention to technology; the search for fundamental principles and efforts to understand them have been set aside in favor of reading about technological developments. It is not yet known how general-science courses can be made to reveal science and scientists in proper balance nor how much attention can or should be given to technological developments. Studies now being made promise to consider such problems.

From science built on a limited understanding of mathematics to science built on mathematics.—Many leaders believe that there is a growing kinship between science and mathematics instruction. There should be, they say, a close working relationship between leaders in these two disciplines and between them and leaders in liberal and fine arts. Perhaps mathematics and science teachers are working more closely together even if the change is not now clearly visible. ●

Revival of Interest Needed

Development of Taste in Literature

NILA BANTON SMITH

In Elementary English

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INSTRUCTIONALLY, we have been making excellent progress in increasing the amount of school children's reading. Are we making equal progress—or any progress—in regard to what they are reading?

It is pleasing to read reports of studies indicating an increase in number of books being drawn from the library. But an investigator reports: ". . . the best books are not necessarily the most widely read. If librarians buy good books and poor books in equal quantities, they will be read in approximately equal numbers."

There are studies showing that substantial numbers of children begin to read newspapers at seven and continue to do so through high school. But this thrilling news is dampened when we read other reports of what they read in the newspapers. A report shows that the comics are the first reading choice until grade 12, and that, insofar as other preferences are concerned, the three top choices of boys are "sports, crime-police-gangsters, and auto wrecks." For girls, Hollywood, sports, and local news comes first. There is little interest in editorials, public affairs, columns, book reviews, etc.

A recent study of newspaper reading by teenagers disclosed: 63 percent spend 15 minutes or longer reading the daily paper; front page and comics are read most frequently; and school news, amusements, and cartoons are types of news of greatest interest. Another study, conducted with high-school seniors, indicated that comics, sports, display materials, and display advertisements ranked highest in interest with both boys and girls.

A study of newspaper reading by adults revealed that adult tastes are broader than those of children but in some respects show little improvement. It was found that the total mean readership for men and women was highest for comics, war, defense, fire-disaster, human-interest, weather, individuals, major crime, etc.

It has also been found that college students seem to be lacking in literary taste in their magazine reading. A study by James Binney reported that college freshmen overwhelmingly recommended for the reading of other college freshmen articles with an informative or practical function rather than literature or fine arts.

BOOK READING

Book reading rather than newspaper or magazine reading is a barometer of taste, in a way. There is a tendency to associate book reading with individuals who desire more substance, depth, and breadth, than can be found in magazines and newspapers. The status of book reading as reflected in recent studies is disquieting.

Results of one library study established that more than half of the adults in the nation live within one mile of a public library, yet less than one-fifth of them had visited a library during the year preceding the survey. The investigators concluded that because the library attracts at present "a relatively small and highly selected population" it is failing to a considerable extent as an agency of mass communication and enlightenment. This is not the fault of the library. It indicates that, possibly as one causative factor, we as teachers haven't developed a "hunger" for book reading in large numbers of people.

Studies of the number of books read by students while they are in high school are gratifying; studies of the same individuals after leaving high school are often disappointing. One investigator, Bernard Berelson, found that within a given month a group of students in high school read three times as many books as those just *out* of high school.

Television tastes reflect reading tastes, and vice versa, and studies of programs viewed by children certainly indicate a need for improvement. According to Paul Witty's studies, the types of programs most popular with primary children are the cartoon and cartoon-comedy types. Mystery drama is most popular with intermediate-grade children. Another investigator, reporting more generally on the interests of elementary children, states that their favorite programs seem to be those representing variety, adventure, Westerns, and science fiction. As children approach adolescence, crime drama and popular music claim much of their viewing time. These interests continue in high-school with the additions of "shock" offerings and comedy shows.

TIME VIEWING TV

The amount of time children devote to favorite programs is of concern to many parents and educators. In a summary of studies concerning children and TV, Witty found that in 1950 viewing time for elementary-school pupils averaged 21 hours per week. In 1957, the average per week was 26 hours in one experiment and 20 hours in another.

A recent study of 2,000 junior-high-school students revealed that the average time spent per year viewing TV was 1216 hours and the maximum time spent per year in classrooms was 1144 hours. The investigators concluded: "Any medium which absorbs so much of a student's time as television is almost certain to have some effect on his sense of values and on his sensitivity to his environment."

The data available reveals that children on the average devote about one hour per day to voluntary reading and three hours per day in viewing television. Perhaps if teachers and researchers were to direct more vigorous effort to development of keen tastes in and deep appreciation for the content of good books, children would spend less time viewing the bizarre on the screen and more time in communing with the writers of worthwhile literature.

There has been a decline of research activity since the thirties in the area of appreciation and taste in literature. The twenties marked the period of greatest activity. A few studies of taste and appreciation were made in the thirties but the number declined sharply with the advent of new means of mass communication. In the later thirties, concern about reading of comics became a major research interest, an interest which continued through the forties. It was supplemented eventually with research in regard to radio programs. Television entered American homes in 1949-50 and TV viewing has been a primary subject of investigation since then.

During the last two decades several studies have been conducted in- to the newspaper, magazine, and book reading interests of children and adults, but the topic of developing taste in literature has all but vanished from research considerations. Interests, of course, reflect tastes, but studies having to do with the development of taste per se are extremely rare in the annals of educational literature.

In regard to research that needs doing, there are three challenging possibilities:

There is a dire need for tools for use in measuring literary tastes and appreciation at all levels. Research cannot proceed far until new tools of measurement are developed.

Some older studies are interesting and provocative and might well bear repeating with improved designs and under present environmental and social conditions.

Many methods and materials in current use should be tested for their effectiveness in developing tastes, and new methods should be devised, applied, and measured.

Those who are searching for a research problem, those who are interested in literature, and those who would contribute something toward a richer life for future Americans should not overlook the exciting possibilities of probing the significant topic of developing taste in literature. Let's have a revival of interest in developing literary taste! ●

IF more politicians knew poetry and more poets knew politics, the world would be a little better place to live in. *John F. Kennedy.*

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

President's Message.—President Kennedy's 1963 Message to Congress on American Education is largely an iteration of last year's list of legislative requests, but in repeating his recommendations the President has modified some previous proposals and significantly refrained from assigning any priorities for Congressional consideration.

The President wants to improve "educational quality" through an increased number of federally financed research and demonstration projects and centers, through substantial federal funds for preparation of teachers and library, guidance and research personnel, and through expansion of the Library Services Act. These particular proposals differ in some detail but not in substance from last year's bill for "quality education."

Other 1962 legislative proposals that are repeated this year in the President's message are those to expand federal aid for education of exceptional children, and functional illiterates, as well as adults generally (through expansion of land-grant college extension programs). Last year's proposals to extend and improve various portions of the National Defense Education Act also appear in this year's Message.

Important changes were made, however, in the proposals for aid to elementary, secondary, and higher education. The President is recommending federal grants to states for both school construction and teachers' salaries. But the legislative language with respect to both proposals would require the states to give priority to the neediest districts if federal funds were not sufficient to permit payments to all districts.

This ingenious requirement makes it possible for Congress to vote aid for every state but not every district. Previous Democratic proposals would have allocated some funds to every school district. One reason they did not become law is that conservative Democrats and liberal Republicans, otherwise inclined to favor federal aid, objected to sprinkling federal aid on wealthy and needy districts alike. Instead, they favored formulas which limited aid to needy districts, but no one could ever gain agreement on a nation-wide definition.

Under the President's current proposal, unless Congress were extremely generous with its appropriations, each state would be required to decide which district urgently required federal funds "to relieve serious overcrowding, double sessions, or unsafe or unhealthful school housing." This provision may well win the uncommitted votes in the House of Representatives which must be gained if the measure is to be enacted.

The President's teachers' salaries proposal is also calculated to overcome Congressional objections. Instead of lump sums for the states to divide between construction and salaries, as had been previously proposed, now the Administration recommends federal grants to help increase salary maximums for teachers with 10 years or more of service and to bring up the entrance salaries of those degree-holding, certified teachers whose pay is substantially below the state-wide average.

Here, again, the state would have to accord priority to some districts if the federal funds were not sufficient to permit distribution to every district. Pinpointing the teachers whose salaries would be raised with federal funds and limiting this aid to some but not all districts are further features intended to attract additional support for the President's program.

Higher Education.—The President's proposals to aid higher education make virtually no distinction between public and private institutions. Loans for construction of academic facilities and grants for building and equipping libraries and graduate schools would be equally available to public and private colleges and universities. Only construction grants for community colleges and technical institutes would be limited to public institutions. These proposals will be more popular in the House than in the Senate, and if they are enacted, they will probably be revised considerably.

The Administration recommends that both public and private institutions be made eligible for federal aid to expand technician training, as proposed last year by Rep. John Brademas (D-Ind). This is contrary to the recommendation of the Panel of Consultants on Vocational Education, but its recommendations are also included in the President's Message, so Congress can take its choice.

Dropping his request for undergraduate scholarships, the President proposes two additional forms of college-student aid. Conceptually, one may distinguish three groups of students to be aided. First, there are those whose promise is great but whose finances are extremely shaky; for example, they may be preparing for a field in which they cannot expect a substantial salary. For these students, the President proposes a revival of the NYA program of part-time, paid academic employment in the library, laboratory, or classroom.

Then, the President proposes a relatively noncontroversial expansion of the student loan provisions of the NDEA. These loans are for the students willing and able to borrow to finish college. In addition, this year the President proposes that the government guarantee private loans to college students. Since these would probably be at higher interest rates and on more stringent terms than NDEA loans, they would be intended for the students from more affluent middle-class families.

This proposal, which was originally put forward several years ago by Vice-President Lyndon B. Johnson when he represented Texas in the Senate, has been likened to the FHA program, under which the government insures the repayment of private mortgage loans. For the most part, it would be financed, like FHA, by insurance fees levied on the borrower and would, therefore, not require large federal appropriations, if any.

Throughout the President's legislative program, an effort has been made to keep first-year expenditures as low as possible. The Administration is committed to reducing taxes, and it is hoped that this will so stimulate the economy that total federal revenues will rise next year and afterwards. If spending can be held down until the tax cut takes effect, the Cabinet has been told, there will be room in subsequent federal budgets for program expansion.

For this reason, the education proposals carry modest initial price-tags. These will probably not disarm Congressional opponents, but they may at least mute their initial vocal charges of "budget-busting" and "reckless spending."

E Pluribus Unum.—In the last few months, those involved in drafting the President's legislative program for education wavered between sending Congress a series of bills, as was done last year, or submitting instead one big bill containing all the proposals.

If the President sends Congress a series of bills, then he or key Congressmen must somehow, publicly or privately, indicate the order in which they should be enacted. This is bound to offend one or another group of educators, Congressmen, or citizens. Everyone naturally contends that his particular bill deserves immediate attention.

On the other hand, if the President sends Congress one big bill—known in Washington as an omnibus bill—then it may attract the support of many diverse groups, whose cumulative efforts may carry it to enactment. Opponents, of course, will attempt to divide the omnibus bill into separate measures, so they may dilute its support and so they may vote for some provisions and not others. And an omnibus measure evokes a coalition in opposition as well as support.

If the Committee chairmen are sympathetic to the omnibus bill, they can usually prevent it from being fragmented. To be sure, some changes are almost inevitable as the legislative process proceeds, but these may well add provisions—and support—as others are subtracted.

At this writing, the Administration has decided to submit an omnibus measure in the field of education. What provisions if any, will be abandoned by the Administration, which will be rejected, amended or added by Congress, and whether some semblance of the original measure will eventually become law, time will tell. ●

A Two-Job Man

BENJAMIN C. WILLIS, general superintendent of schools in Chicago, has been named director of the Massachusetts Education Commission which is making a comprehensive survey of education in the Bay State.

Dr. Willis, who will retain his Chicago position and salary while directing the work of the survey staff in Boston, now is said to be the fourth highest paid public official in the country. His salary from the two positions falls below only those of the President of the United States, the Governor of New York, and the Mayor of New York City.

The Massachusetts Education Commission, which was established by the legislature last year, is enjoined to conduct a thorough study of all public education in the state, from kindergarten through university level.

Dr. Willis will be paid $32,000 to conduct the study and will be expected to devote a "minimum" of 200 working days to it. He is expected to set up the office during the summer vacation months and to make quick trips from Chicago to Boston when necessary.

Ford Foundation Report

THE Ford Foundation, in its 1962 annual report published in January, reported that it had made grants and new commitments totaling $255.7 million during the fiscal year ending Sept. 30. This compares with $115.7 million during the preceding fiscal year.

Nearly half of the total grants, or $125,350,000, was devoted to education in the United States. Of the educational grants, a total of $27.6 million was given to 22 institutions under the Foundation's Special Program in Education, an effort to expand and improve academic programs in selected private universities and liberal-arts colleges.

The Foundation granted $3.5 million to the Oregon State Department of Education for a statewide program combining improved preparation of school teachers and better teaching methods, curriculum, and school organization. School improvement programs were also supported in Newton, Mass., and Norwalk, Conn.

The Ford Foundation also granted $27.5 million to the Woodrow Wilson Fellowship Foundation for its program to recruit and train college teachers, and it granted a total of $3,830,000 to nine colleges and universities in support of experimental programs to improve the preparation of school teachers.

Other grants include: $14.5 million to the National Merit Scholarship Corporation; $2 million to the American Council on Education for a major reorganization; $5 million to the Educational Facilities Laboratories; $2 million to the Fund for the Advancement of Education; $8.7 million to the

Midwest Program on Airborne Television Instruction; $4.7 million to the National Educational Television and Radio Center; and $2,994,000 to Station WNDT, the New York metropolitan area's first educational-television station.

Transition Classes

PUPILS in Cleveland, Ohio, who seem to have difficulty in adjusting to junior-high school, are now attending "transition" classes. The initial results of this new program, which involves 220 boys and girls deemed likely to become dropouts, are promising, according to an announcement in *Education U.S.A.*

The pupils in this program do all their work in one room; the teachers do all the moving. Reading is emphasized, and it is applied to all studies. Newspapers and catalogs are employed in the reading assignments.

Teachers involved in the project report an improved attitude toward learning and unexpected achievement.

AASA New Officers

J. WIN PAYNE, superintendent at Ponca City, Okla., has been named president-elect of the AASA for 1963-64. He will automatically take over as president of the organization next year.

Also elected to office in the mail ballot by 14,000 Association members were Harold Spears, superintendent at San Francisco, Calif., who was named vice-president; and Wendell H. Pierce, superintendent at Cincinnati, Ohio, who was named to the executive committee.

The AASA also has a new associate secretary. He is Archibald B. Shaw, who joined the Washington staff of the AASA in December. Dr. Shaw, who has been editor of *Overview* magazine since 1959 and who was formerly superintendent at Scarsdale, N.Y., will also continue in his editorship for an indeterminate period, it is announced.

The AASA will hold its annual convention in Atlantic City, Feb. 16-20.

Wisconsin *Vs.* NCATE

THE faculty of the University of Wisconsin school of education has voted to withdraw the school's application to the National Council for Accreditation of Teacher Education (NCATE) for accreditation of the school's undergraduate program. The move came after the NCATE, a department of NEA, tentatively offered only provisional accreditation.

Dean Lindley Stiles said he recommended the withdrawal action despite a letter from W. Earl Armstrong, NCATE director, stating that the accreditating body's executive committee would recommend full accreditation for the Wisconsin program at its May meeting. Stiles said much of NCATE's criticism of the school of education centers on its inclusion of professors in other departments as voting members of the school's faculty. NCATE's 19-member council specifically criticized what it termed the lack of control by the school of education of its students and their course work, and uneven admission standards.

"In trying to strengthen teacher education," Dean Stiles said, "the NCATE has made the common mistake of believing that uniformity is equated to quality."

The faculty of the school, however, accepted NCATE's reaccreditation of the graduate program of the school of education.

Dean Stiles points out that the faculty is not objecting to accreditation, nor is it against accreditation by NCATE. "As soon as the standards and procedures of NCATE are brought into line with what is supported generally by those in teacher education in colleges and universities, we will again give full support to its accreditation program," he said.

No Strings Attached

A RESOLUTION calling for federal aid to education with no strings attached was adopted by the Council of Chief State School Officers at its annual meting in Miami Beach.

The resolution called for strengthening "the basic state and local systems" by providing that federal funds "should be deemed to be state funds on receipt by the state."

The resolution also called for apportioning federal funds among the states on an equalization basis so that the poorer states would receive proportionately more than the wealthier states, with each state left free to determine its own program of allocation to local districts.

The Council requested elimination of federal regulations making necessary prior federal approval of state programs under the Manpower Development and Training Act; requested its study commission to recommend to the U. S. Office of Education research studies of "more positive benefit" to the schools of the nation; urged that schools give high priority to education for international understanding, and to continue to teach the principles of Americanism and about communism, fascism, and their variants within the existing social-studies program.

New officers of the Council are: A. W. Ford, Arkansas, president; Frederick M. Raubinger, New Jersey, vice-president; and Byron F. Stetler, Nevada, second vice-president.

History on TV

A NEW hour-long series of dramas of American history to be presented next fall in a regular weekly prime evening-time period has been announced jointly by the CBS Television Network and the National Education Association.

A representative of the NEA will appear on each program to further its educational objectives, it is announced.

Production of the new series is expected to start in April. The program will be produced in California and on location. No title for the series has yet been selected.

Classroom Shortage

SHORTAGE of public-school classrooms in the U. S. last fall totaled 121,200, the U. S. Office of Education has reported on the basis of information received from 50 states and the District of Columbia. This is 6,100 fewer than the shortage reported for the previous year.

The shortage this year is about half in classrooms needed to replace unsatisfactory facilities and half needed to relieve overcrowding. There were 1,667,000 pupils in overcrowded classrooms last fall, a reduction of only 26,000 from the previous year's figure.

The states completed 72,000 classrooms in 1961–62 and abandoned 18,100. For the current year it is estimated that 64,100 new classrooms will be completed.

Fewer Underachievers

A RECENT Kent State University study compiled for the Ohio Department of Education indicates that underachievement among academically gifted children may not be the serious problem some educators believe.

Henry Dizney, reporting on the year-long study, disclosed that only 16 percent of a cross-section of the state's gifted elementary-school children were not doing as well as they might. Some educators have estimated the incidence of underachievement to be as high as 50 percent among the gifted.

Dizney's report, based on a study of 3,768 fourth and seventh graders in 42 widely scattered districts in Ohio, shows 17 percent of the fourth graders with IQ's of 116 or better were capable of doing better. Among seventh graders, 15 percent were underachievers.

DATES OF THE MONTH:

Feb. 9-13, National Association of Secondary-School Principals, Pittsburgh, Pa.

Feb. 13-16, American Association of Colleges for Teacher Education, Chicago, Ill.

Feb. 16-20, American Association of School Administrators, Atlantic City, N.J.

DATES OF THE COMING MONTHS:

Mar. 3-6, Association for Higher Education, Chicago, Ill.

Mar. 10-14, Association for Supervision and Curriculum Development, St. Louis, Mo.

Mar. 10-15, National Art Education Association, Kansas City, Mo.

Mar. 29-April 2, National Science Teachers Association, Philadelphia, Pa.

Mar. 30-April 3, Department of Elementary School Principals, NEA, Oklahoma City, Okla.

April 3-6, National Council of Teachers of Mathematics, Pittsburgh, Pa.

April 9-13, American Industrial Arts Association, Indianapolis, Ind.

April 16-19, National Catholic Education Association, St. Louis, Mo.

April 16-20, Council for Exceptional Children, Philadelphia, Pa.

April 21-27, National Library Week.

April 21-26, Association for Childhood Education International, Miami Beach, Fla.

April 22-26, Department of Audiovisual Instruction, NEA, Denver, Colo.

April 24-27, National Association for Gifted Children, Terre Haute, Ind.

April 28-30, National School Boards Association, Denver, Colo.

May 19-22, National Congress of Parents and Teachers, Miami Beach, Fla. ●

Teacher Education—A Reappraisal. Edited by Elmer R. Smith. New York: Harper & Row, Inc., 1962. Pp. vii + 213. $4.00.

This book is the result of a request by the Fund for the Advancement of Education to a group of educators for a reappraisal of how teachers are educated in America.

The group met for eight weeks to probe intensively such issues as: Why is the shortage of teachers increasing? Why do requirements stated in accreditation and certification differ sharply from those in teacher recruitment? Why do so many potential learners in the schools fail to learn?

Conclusions and recommendations are reported in chapters written by the participants, including chapters on "The Role of the School," John Walton: "Applications of the Behaviorial Sciences," Ralph W. Tyler; "Practice in Teaching," Judson T. Shaplin; "The Need for a Unifying Theory of Teacher Education," Paul Woodring; and "A Schema for Teacher Education," Robert N. Bush.

Other chapters are written by Alvin C. Eurich, John I. Goodlad, and the editor of the volume, Elmer R. Smith.

The conferees were unanimous in agreeing that action is needed to improve the quality of teacher-education programs. They do not call for new approaches but they do reject much that is now a part of teacher education. The book contains some guidelines for improving the quality of teacher education.

Religion in American Public Schools. Richard B. Dierenfield. Washington, D.C.: Public Affairs Press, 1962. Pp. vii + 115. $3.25.

"The issue of religion in tax supported schools is one of the most vexing problems facing American education today," says Professor Dierenfield.

This book explores the issue through discussion of the historical background, philosophical aspects, legislation, and practices in the schools which produce controversy.

The writing is objective, a reporting of facts about the influences religion has had on public education in this country from the Colonial period up through the current controversy resulting from the Supreme Court decision involving use of a government written and sponsored prayer in New York schools.

A foreword to the book is written by Bishop James A. Pike, who comments, "It is fortunate that just at this time we are provided through Professor Dierenfield's exhaustive study a clear picture of what actually has been going on in public education throughout the country with reference to religious observances, activities, and instruction. This provides the much-needed factual base for the intelligent forming of opinions and corporate decision on the part of our citizens."

Programed Instruction for Schools and Industry. J. L. Hughes. Chicago: Science Research Associates, Inc., 1962. Pp. xv + 299. $6.00.

This book is designed to serve as an introductory text in programed instruction. It avoids the technical language of the psychology laboratory in an attempt to serve educators, training specialists, and other lay readers concerned with instructional programs.

The content explains essential characteristics of programed instruction, offers suggestions for effective application, gives examples of successful programs, and presents suggestions for introducing programs into existing educational situations.

Topics covered include: different versions of programed instruction, teaching machines, programed texts and scrambled books, values of machines versus

GUIDANCE

Guidance in the Public Schools. (Revised Edition.) Edward Landy and John C. Palmer. Boston: Massachusetts Council for Public Schools, Inc., 1962. Pp. 24. $.40.

Guidance: A Longitudinal Approach. Howard L. Blanchard and Laurence S. Flaum. Minneapolis: Burgess Publishing Co., 1962. Pp. v + 333. $4.95.

Girls and Their Futures. Marguerite W. Zapoleon. Chicago: Science Research Associates, Inc., 1962. Pp. 48. $.50.

PROGRAMED INSTRUCTION

Explaining "Teaching Machines" and Programming. David Cram. **Preparing Objectives for Programmed Instruction.** Robert F. Mager. San Francisco: Fearon Publishers, 1962. Pp. vii + 86 and xii + 62. $2.00 and $1.75, respectively.

Teaching Machines and Programed Learning; A Survey of the Industry, 1962. James D. Finn and Donald G. Perrin. U.S. Office of Education booklet OE-34019, 1962. Pp. x + 85. Available from U.S. Government Printing Office, Washington 25, D.C., $.55.

Step by Step in Better Board and Committee Work. Roy Sorenson and William C. Tuck. New York: Association Press, 1962. Pp. 119. $3.00. A programed instruction manual.

GENERAL

The Schools. Martin Mayer. New York: Doubleday & Company, Inc., 1962. Pp. xix + 499. $1.45, paperback.

Effective Teaching of Reading. Albert J. Harris. New York: David McKay Company, Inc., 1962. Pp. xi + 387. $5.00.

Concise History of Education from Solon to Pestalozzi. Hermann Weimer. New York: Philosophical Library, 1962. Pp. 160. $4.75.

Geology and Earth Sciences Sourcebook for Elementary and Secondary Schools. Edited by Robert L. Heller. New York: Holt, Rinehart and Winston, Inc., 1962. Pp. xv + 496. Prepared under guidance of American Geological Institute.

Teaching Opportunities Overseas. East Islip, N.Y.: Hill International Publications, 1962. Pp. 16. $1.00.

Radio-Television-Electronics Dictionary. Prepared by Staff of National Radio Institute. New York: John F. Rider Publisher, Inc., 1962. Pp. 168. $3.50, paperbound.

English as a Foreign Language. R. A. Close. Cambridge, Mass.: Harvard University Press, 1962. Pp. 177. $4.50. Grammar and syntax for teachers and advanced students.

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The Education Digest

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fic and engineering fields, space technology, chemicals, and communications.

The best foundation for a vocational-education program, as well as one to develop the full capacity of the individual, is a quality general education that develops skill in reading, mathematics, and other general-education fields. These skills are essential to acquiring specific vocational competence and the high levels of education needed for many occupations. While vocational education is only a part of education, quality skill development remains an important part of it.

In the report of the Panel, vocational education is considered to be all formal instruction at high-school or post-high-school levels which prepares individuals for entrance or advancement within an occupation or a group of related occupations. Technical education is considered to be a part of the continuum of vocational education. Liberal and vocational education are both essential aspects of preparing an individual for living and for earning a living.

In presenting this report, the Panel is mindful of its debt to others. However, we are at a point where we must be as creative and as forward-looking as the men who charted the original guidelines of vocational education and who brought them to this point in time.

GENERAL RECOMMENDATIONS

The Panel makes these five general recommendations:

1. Offer training opportunities to the 21 million noncollege graduates who will enter the labor market in the 1960's.

2. Provide training or retraining for the millions of workers whose skills and technical knowledge must be updated, as well as for those whose jobs will disappear due to automation or economic change.

3. Meet the critical need for highly skilled craftsmen and technicians through education and training beyond the high school.

4. Expand vocational and technical-training programs consistent with employment possibilities and national economic needs.

5. Make education and training opportunities equally available to all, regardless of race, sex, or place of residence.

The Panel suggests that opportunities to prepare for the work world must be available to all who need them. The number of technicians needed indicates that the combined efforts of every high school, vocational school, junior college, technical school, and all universities and colleges are required to meet this need.

To achieve the objective of making vocational education available to meet the needs of the people, the following categories of vocational education are recommended:

Occupational training for youth in high school who are preparing to enter the labor market or to become homemakers. The following are among the specific recommendations:

Preemployment training programs to be developed for distributive occupations in addition to present cooperative work-school programs.

Education for the vocation of homemaking to replace the currently used terms of vocational home economics and general home economics as they are now used to describe high-school classes.

Standards to be developed for separate classes in business education which train for employment in office occupations as distinguished from those which train for personal use of these skills, and the attainment of eligibility for federal vocational-education funds of such vocational classes.

Numerous innovations in schools have resulted from changes in the work world and changes in the nature of school populations. Such innovations include: vocationally oriented upper-elementary-school programs; new vocational high-school programs; materials and programs for over-age youth in school; materials and programs for out-of-school, out-of-work youth; and, unique programs that combine experience and education.

All the above projects, planned to motivate and to meet the needs of children of limited backgrounds, include cultural enrichment experiences, and counseling services; usually, health and welfare services are also provided. In all, these projects constitute a program designed to serve those from 14 to 21 who are average for grade placement or out-of-school and out-of-work, who are of limited background, and/or are newcomers to the city.

Vocational training improved or redirected to better serve these high-school youths with special needs. New occupationally-oriented vocational-education programs should be added to the school curriculum which will lead to employment in jobs known to exist, and which can be successful educational experiences for youth who cannot profit from instruction in the traditional programs.

Cooperative (school-work) programs should be organized wherever possible so that the student may have the advantages of school experiences coordinated with employment. Diversity and flexibility must be the keynote of such programs. Instruction should be highly individualized to assure occupational stability of such students.

Appropriate vocational guidance of practical significance must be made available to such youth, and each person trained and employed should be "followed up" to determine quality of training provided and to secure information leading to improvement of the content and the method of training.

Occupational training for youth and adults who have completed or left high school and are spending full time in preparing to enter the labor market. Some of these students have completed the normal high-school academic program, some students have completed a high-school vocational curriculum, and other students have not yet completed the high-school curriculum but can demonstrate their ability to benefit by training in a post-high-school program. Occupational-training programs for these youths may be similar to those given in high school or may be quite sophisticated, requiring extensive knowledge of science and mathematics.

Occupational training for youth and adults who are employed and who need training or retraining to achieve employment stability. These youths and adults are returning to schools to learn new skills, to upgrade present skills, or to supplement other training. Except in periods of emergency, this has been largely in upgrading skills in the occupation of employment. In the future, this type of program may expand most extensively to provide retraining for another occupation in anticipation of displacement or as a result of unemployment.

Training opportunities for out-of-school youth and adults should be expanded by developing programs to adjust skills of the labor force to the changing needs of the economy. This requires emphasis be given to retraining the unemployed and that provisions similar to the Manpower Development and Training Act be continued.

Finally, the Panel recommends that services and facilities should be provided to assure quality in all vocational and technical-education programs. The preparation of teachers, preparation of instructional materials, research studies, occupational information, and vocational guidance are all necessary parts of effective vocational instruction. If the programs of instruction described are to achieve their objectives, these services to instruction are of urgent and vital concern.

The program of studies of the American high school probably represents the most unique contribution to education made by our country. A school program to meet the diversified interests, aptitudes, and needs of all youth of the 15-18 year age group in a society has never been achieved by any other country. Training for entrance into the labor market is an important part of the program to meet these diversified needs.

Pursuit of a vocational curriculum should permit a student to continue achievement of basic educational skills, training for leadership, and growth as a citizen. The vocational curriculum should help the youth who is not going to college to succeed in his next venture in society, just as the academic curriculum should help the youth who goes to college.

As the vocational curriculum provides for this objective, it contributes to a number of additional desirable results. It holds many youth in school for a longer period, giving them opportunity for additional academic and cultural experiences, and they are kept off the labor market until their maturity and training make it easier for them to get and hold a job. •

Contrast between NEA and AFT

Teacher Organizations and School Desegregation

PATRICK J. GROFF

In School and Society

TWO national organizations vie for the bulk of teacher affiliation and support: the American Federation of Teachers and the National Education Association. Both pursue many of the same goals—higher salaries, tenure, stricter certification regulations, and greater teacher control over textbook selection, curriculum construction and revision, classloads, and pupil discipline. They agree to defend federal aid to education and are united in opposition to salary increases based on merit ratings. Nominally, at least, both *advocate* school desegregation.

A number of factors have contributed to the notable growth of the AFT in recent years and, consequently, to its challenge to the NEA for teacher memberships. The overwhelming implications of school desegregation for the school and society makes it pertinent to inquire if the stand of these two organizations toward this change has had any appreciable effect on the upsurge in membership in the teachers union.

While a conclusive answer is impossible in the light of available evidence, it does seem likely that action of the two organizations on this critical issue would have its influence, especially on those teachers sensitive to the evils of racial and religious discrimination and injustice.

Careful observation reveals that the conduct of the AFT and the NEA on the issue of school desegregation has been markedly different. As early as 1931, the AFT denounced discrimination in education on the grounds of race. In 1948, its Democratic Human Relations Committee, after reminding all charter applicants of this 1931 resolution, urged the end to segregation in interstate transportation.

In 1949, the AFT's executive council pleaded unsuccessfully with its southern locals to join with Negro locals. It recommended that every local establish a committee to propose ways of abolishing all types of segregation. The burning issue in the higher councils of the

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AFT during this period was whether to continue to issue new charters to segregated locals. To deny these would handicap the growth of the union, at least temporarily.

The harder course was taken. In 1951, the AFT resolved that no new charters would be issued to locals that discriminated in their memberships because of race. It recommended that existing locals adopt nondiscriminatory clauses for their charters, if such were lacking. In 1953 a constitutional amendment made this an official national policy of the union: "The practice of any local in limiting its membership on account of race or color shall render its charter void."

The following year the AFT demanded reports of progress and plans for integration from its locals still segregated. It was not a shallow threat. In 1956, the Atlanta local, after refusing to eliminate "for white only" in its constitution or to take steps toward integration, was forced to surrender its charter. At the same time, the option of integrating or losing their charters was given to eight other southern locals.

In 1950 the AFT filed one of its several briefs as an *amicus curiae* to a court dispute over desegregation. In 1952, when the U.S. Supreme Court consented to hear the South Carolina school desegregation case, the AFT entered as a friend of the court "to indicate its whole-hearted support of the principles of nonsegregation in the public schools." It resolved that "equalization of segregated school systems of the nation is impractical" and that "segregation in public schools inevitably results in inferior educational opportunities for Negroes." In 1954, before the Supreme Court had decided the illegality of segregation, the AFT repeated this role as friend of the court. After the decision, it resolved to join in furnishing facts to the court in hearings on the most feasible ways to implement integration.

In its membership organ, *The American Teacher,* the AFT has editorialized repeatedly in support of integration. It condemned Governor Faubus during the Little Rock crisis in 1958 and urged President Eisenhower to become "vocal and vigorous in guaranteeing all children full educational opportunities."

NEA POSITION

This clearly framed position is given here in some detail for a better view of contrast with the position taken by the NEA.

There can be no mistake that the NEA, unlike the AFT, has decided to have an indeterminate role in the struggle toward integration. Never before the 1954 Supreme Court decision did the NEA give support to legal action attempted by defenders of Negro pupils and their Negro teachers. On no occasion were local chapters rebuked or suspended for practicing racial segregation in their memberships.

Moreover, if serious attempts

were made to write a nonsegregation amendment to the NEA national constitution, apparently such drafts were firmly tabled.

The NEA gave no documentation on the issue or information as to its beliefs on the evils of segregation to the Supreme Court while this body was deliberating on the segregation issue.

In effect, the NEA turned its back on the problem, cautiously straddling the fence separating segregationists from those carrying the fight for integrated schools through the courts.

Since 1954, the NEA has used few of its good offices to aid in implementing the Court's decree. Furthermore, it has stated that it opposes action by the federal government in the matter. As late as 1960, the NEA regarded integration as an "evolving process" in which "all the problems of desegregation in our schools are capable of solution at state and local levels."

Repeated instances of resistance by southern states and communities to federal court orders to integrate their schools, the civil disorder that is involved, and the need for intervention by the federal government apparently have done little to alter the NEA's conviction.

NEA resolutions since 1954 ring with the sound of high ideals. These translate into wishful commonplaces, carefully broad and bland, seemingly predetermined not to offend the southern white membership. All concerned with the problem are asked to "promote good will," "to maintain free public education," "to support democratic principles," "to respect the law," "to respect individual rights," and so on.

Never, however, has there been a biting call to action to breathe some life into these precepts. In short, the NEA has given little to the cause of desegregation either through the weight of its membership, the respect for its seniority, the persuasion of its intellect, or the sweep of its numerous publications.

At various conventions since 1954, the NEA has been reminded that to maintain its membership size it inevitably must assume a discretionary attitude toward the issue of desegregation—in other words, modify in practice its stated code of ethics. So far this policy has proved effective for the purpose it serves. Undeniably, NEA membership has continued to grow.

Nevertheless, one must wonder what long-range side effects on growth such expediency will bear, especially as the contrast with the stand of the AFT on this matter becomes better known. How much longer will NEA members, particularly those members conscious of the human values involved, be satisfied with the convenience of organizational growth dependent on an equivocal set of ethics? Some disaffection, perhaps, has begun already. The growth or decline of the AFT should serve as a barometer for this. ●

Changes Come Slowly

The Changing Curriculum a Phantasy?

F. W. STEMPLE

In The Educational Forum

F. W. Stemple is Emeritus Professor of Education, West Virginia University, Morgantown. Reported from The Educational Forum, *XXVII (November 1962), 85–91.*

MANY teachers are thinking seriously about what they teach. Faculty meetings are frequently for the purpose of local improvement; and county, state, and national organizations of teachers, administrators, special interests societies, patrons, and professionals meet in mutual conferences to consider curriculum changes—additions, deletions, innovations, and methods.

Has it occurred to them that in some respects few changes have ever been made, and that most changes have met opposition and were, therefore, made very slowly?

From our knowledge of man's primitive cultures, it is believed that education was prescribed for the purpose of individual existence and to acquaint the child with such knowledge as deemed necessary and essential in maintaining tribal unity, cooperative citizenship, and in understanding affairs in the tribesmen's life. Tradition maintained a fixed program. Originality and variation could not be recognized or tolerated.

Improvement took a big jump from the primitive to the Athenian Age (600 B.C. to 100 B.C.), though advancement was being made in places other than Athens. Mathematical concepts were developed during this age. Actually the Egyptians had begun the theory and use of geometry before the Greeks.

Confucius, Moses, Socrates, Aristotle, Plato, can be recalled as critics and proponents of practices and philosophies of their day. Regardless of the criticism by such men, the same *general* subjects as those of the primitives were in use: literature, mathematics, sciences, social studies, religion, fine and applied arts, physical education. The changes came almost entirely within the subjects.

A third period in the history of education is known as the Roman and Medieval Period. During this period, literature was scrutinized by ecclesiastical authority to censure material that had no bearing on, or was harmful to, religious beliefs. Some classics were taught because of a new idea of disciplinary value.

The world owes much to a few masterly scholars at that time who worked unnoticed formulating concepts, gathering and preserving the best. Out of their work grew the Renaissance. Out of the time developed the seven liberal arts: grammar, rhetoric, logic, geometry, arithmetic, astronomy, music. Astronomy, a new subject, was of value because of the influence of religion and astrology. In other words, for the most part, subjects were persisting under new content and principles. Within the subject some essentials were changing. Much of the material of the seven liberal arts changed from interesting and useful culture to a narrower field of religion and morals and a system of mechanized grammar and analysis, with little or no practical application.

The period of Revival of Learning (1300 A.D. to 1500 A.D.) was brought on with a well marked change in attitude regarding church control with its dogmatic restrictions. Writers, few in the preceding age, now began to speak out. Interest in secular learning—law, medicine, geography (resulting in Columbus' undertaking), architecture, and practical arts was manifest. The age gives a feeling that the period was more like that of today than any previous period history records. The list of general subjects taught remained much like the list of the seven liberal arts but the content was distinguished by an "indiscriminate avidity for the classics" throughout Europe.

Today, the program for teacher training in West Virginia, used as typical in America, provides for certification in subjects that show the same general types appearing through the entire history of education, adding various vocational subjects and language specialized into four or more fields.

It can be said that it has taken more than 20 centuries to make what few changes have been made, and then largely in the subject matter and processes of courses.

PROGRESS FROM CRITICISM

One can surmise that in all the days gone by, any criticisms and proposals must have resulted in extended delay and inaction just as today. That would account for infrequent change, but no doubt more adequate improvement. Criticism is a human prerogative that started with the intelligence of man, is continuous, and fortunately will never stop. Because of it, in time progress results.

Educational criticisms have been varied, provocative, and numerous, with a sort of classification that has some chronological order. Starting with the ancient Greeks and coming up to today, the list is something like this:

> Objections to the use of classics; comparisons of the relative importance of humanism, realism, liberalism; the value of subjects for mental discipline; criticism of apparent disregard for child study; lack of educational facilities for the masses; use of vocational subjects; need for more thorough and universal-aesthetic training; neglect of social values—civic responsibility, morals, religion; internal organization of subjects and ways of teaching; efficiency, selection, and use of textbooks.

Throughout all the criticism and proposals of the centuries there developed a few central ideas, attitudes, and modes of educational procedure that influence educational procedure today.

First, and foremost, there is humanism, a system of faith in the possible development of the human being into something ideal. According to Plato's reasoning, education is a process of soul culture. His program would develop justice, right, and virtue. Music and literature would soften and refine.

Many years later, Petrarch, called the father of humanism, advocated literature as the way to teach all this, but instead of ancient classics, he would use contemporary literature. Today's advocates of humanism would include such items as the "Great Books" of Chicago University listing, or the Harvard "Five-Foot Shelf" classics as a large part of the curriculum.

Plato was also an advocate of the idea of mental discipline, requiring that students come to him only after their minds "had been whetted with geometry." According to him, geometry is a subject used to train men to think straight. When used to measure land, as the Egyptians did, it is not disciplinary and, of course, not humanistic. The Greek philosophers reasoned that the practical deals with the passing, the changing, the inconsequential, and is, therefore, of no great value. The speculative, the disciplinary deals with the permanent, the distant, the universal. And so the controversy goes on and on, while the humanities, used for disciplinary purposes, become formal, analytic, and lose their inspiring qualities.

There were critics early in the history of education who lamented that both the ideas of humanism and mental discipline were not related closely enough to real life. This *realism* movement would use the facts of science, would be creative, would abandon opinionated arguments, outgrown beliefs, practice, and tradition. This received considerable impetus during the intellectual awakening of the Renaissance and the Reformation. Today, at a time of world danger, realism is strongly recognized and generally emphasized as a necessity.

From criticism, change can be expected. The greatness of the ancient Greeks came about because of that. Greek education liberalized as time went by because it was based on their willingness to explore into new fields.

But established subjects became well organized. Until a new course or new subject matter has been equally well organized and systematized, it is going to have very effective opposition. This has been the history of vocational subjects.

Now vocational courses are being recognized for many of the values of traditional courses, with the additional value of a way of making a living. Educators active in such fields have made tremendous progress in organization and selection of content and are using procedures useful not only for realism but also for humanism and mental growth.

Today education is compulsory for all. To be valuable for all, all sorts of pupils must be recognized and there must be strong elements of the *so-called pupil centering* in determining what is to be taught.

The textbook sets the standard for content and methods of much of the teaching today. Evidence indicates that for a long time to come the textbook will exert primary influence on the curriculum. Texts are revised frequently and, therefore, are subject to change, though quite slowly. But, teachers are free to make innovations. If they are not inventive, the curriculum changes only as textbooks do.

Paralleling and contributing to textbook influence is that of higher education. The curriculums of elementary, slightly, and secondary education, greatly, have been so dependent on what is used in colleges that without college approval major change has seemed impossible. Teachers in preparation get their knowledge and understanding of a given subject from the specialist. In some instances, the arrogance of superior knowledge and scornful disregard of new ideas has not only retarded but has prevented change.

The curriculum of a school, after all, is going to be what the staff decides and uses. Principles, objectives, and aims quite often, indeed usually, become unproductive decorations. There is no value in setting them up if teachers are not going to observe them or if they cannot be attained. Setting these up by state, county, or by local community will not result in all teachers concerned keeping such objectives in mind.

To make what is taught attractive and useful, there is danger of superficiality. This will ultimately kill the subject. In early Greece, young teachers with shallow and cursory ideas came near overthrowing the ancient learnings of the old Greeks. The same thing developed in Rome in medieval times. The same thing can happen at any time.

And all this leads to a few of the many questions teachers might ask themselves:

What are the real values of my class work?

Does my work contribute cultural values?

Only a very small part of the subject matter available to my course can be used. Am I choosing wisely?.

Interests are both means and ends. Are my classes full of interest and have any new interests been developed here?

Have I ever given honest and intelligent study to the texts I use?

Some teachers feel they have reached perfection in their work and, therefore, changes are undesirable. Some teachers are indifferent and unconcerned. But most teachers look every day for better ways, and thus the courses change. A resourceful teacher can greatly enrich what is taught, and thus there is slow but useful change. Let the world criticize, and let the teachers listen. If criticism is sound and proposals are good, let changes come. But slow change has not been too bad.

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Projects Underway at the "Growing Edge"

Curriculum Innovations in a Public-School System

LLOID B. JONES

In Theory into Practice

Lloid B. Jones is Executive Director of Elementary Education, Denver Public Schools, Colorado. Reported from Theory into Practice, *I (October 1962), 197–201.*

THE attempt to transfer curriculum theory into practice tends to sharpen one's concepts of curriculum. For example, according to one theory, curriculum is the sum total of learning experiences; in practice, curriculum is a body of teaching procedures and learning activities which teachers use in the various subject fields. Not many curriculum projects extend beyond the subject fields.

Theoretically, curriculum innovation should be a gradual, even evolutionary, process. The hard realities, however, keep us in a perpetual state of revolution. With mounting pressures for an educational program that begins earlier, moves more rapidly, and encompasses increasingly more content, methods that work today will quickly be obsolescent.

Accordingly, the Denver Public Schools keep 20 to 30 instructional projects in progress at the "growing edge" of the curriculum. We call these activities *instructional studies.*

SOME INNOVATIONS

The following lists some innovations currently underway:

A systematic program of beginning-reading activities is being introduced into the kindergarten and also to children of preschool age in about one-third of the homes. Parents are assisted in working with their children through television lessons and a handbook explaining suitable procedures.

All pupils in grades five and six are studying a foreign language, either French or Spanish. Half of each class period is devoted to instruction by television; half, to instruction by the classroom teacher, using programed materials, tape recordings, and other materials.

Television lessons in the whole range of elementary-school subjects are provided for enrichment and for use supplemental to classroom instruction.

Several schools are experimenting with the ungraded or continuous-progress program in the primary grades; one has extended the program to the intermediate grades.

Junior-high schools are developing ways of implementing Conant's recommendation for individual programing in classes grouped according to ability, subject by subject.

In cooperation with the Denver Art Museum, junior-high and senior-high schools are providing able students with seminar experiences in the study of a civilization through its artifacts.

NEW PAR TEST

A new item has been added to the requirements for a high-school diploma. All graduates must now demonstrate proficiency in the basic skills of reading, English composition, spelling, and computation by passing a specially devised test called the Proficiency and Review (PAR). One purpose of this test is to ensure that young people who seek employment in the community after graduation will be able to meet the ordinary requirements of business practice.

A program based on use of the General Aptitude Test Battery is being conducted to develop a required course in vocational and educational planning. Here pupils in the first year of senior-high school explore employment possibilities in the light of their individual aptitudes and interests and then plan their future educational programs to attain the goals they have established.

Industrial-arts education is incorporating the study of electronics, automation, and synchronized mechanical operations.

Approximately one-third of the English teachers in junior-high and senior-high schools have the services of a lay reader assistant in reading and grading composition work.

Teaching-machine programs and programed textbooks are being developed in English, American history, spelling, and arithmetic.

The Denver Public Schools are involved in the innovations of the Physical Science Study Committee, the Biological Sciences Curriculum Study, and the Chemical Education Material Study. The modern-mathematics program of the School Mathematics Study Group is being used in elementary, junior-high, and senior-high schools.

PERILS

This listing is not complete, but it serves to give some idea of the length and breadth of the "growing edge" of the curriculum in a large public-school system in the 1960's. Like all frontiers, this one has perils.

A danger often overlooked is that of the professional adventurer. In any large organization there are those eager to take off on new trails before they have learned their way on the old. Such individuals would prefer to experiment with a new and highly sophisticated procedure before they have learned, for instance, to make a good lesson plan. It is important, therefore, to establish a way of ensuring review and some control of studies in innovation. The Denver system requires that a proposal be submitted and approved before a new venture is undertaken. This serves to protect the naive teacher from disaster and the pupils from ill-conceived practices, without placing any noticeable damper on the spirit of inquiry.

HOW INNOVATIONS BEGIN

An illustration of how innovations begin and result in fundamental curriculum changes can be drawn by relating the events in establishing the new program of the School Mathematics Study Group (SMSG).

The mathematics supervisor interviewed a number of fourth-grade teachers who were interested in trying out the new program and selected 16 capable teachers. Then he secured a consultant in modern mathematics from the State University to help the teachers in preparing to teach the program. The supervisor arranged for the teachers and the consultant to meet twice a month on Saturday mornings for special study sessions. Each teacher was paid a small honorarium for attendance.

Throughout the year, the 16 teachers experimented with the new program in their classes. Their enthusiasm increased steadily, as it did with pupils, parents, and principals of the schools. By the spring of 1962, teachers of intermediate-grade mathematics were inquiring indignantly why *they* couldn't use the SMSG program. Now the supervisor's problem has become one of finding money and materials to satisfy the demand.

Of course, enthusiasm for the new program is not all-inclusive. But a healthy by-product results when teachers who want no part of the "new-fangled notions" make an effort to show that the tried-and-true program is as good as, or better than, the new one. Such controversy leads to new levels of interest and enthusiasm on the part of each group, with substantial contributions to better instruction.

Several generalizations concerning curriculum change have been implied in this account. The most important one is that curriculum innovations are becoming increasingly essential to keep any instructional program from falling behind the times. But change for the sake of change is not desirable. A tremendous amount of highly skilled administrative and supervisory effort is required to maintain a worthwhile experimentation program.

It must be recognized, too, that although innovations can originate from a number of sources—supervisor, teacher, citizens' committee, or national agency—it is the teacher who controls the curriculum. Innovations are most effective when the classroom teachers become excited. New programs succeed only if the participating teachers enthusiastically support the change. If teachers who have the professional spirit to undertake innovations are given continual support, encouragement, and assistance, the "growing edge" of the curriculum can be cultivated and brought to harvest. ●

Lay Participation in Curriculum Planning?

Definition of the Purpose of Education

JOHN A. BARTKY

In The Clearing House

John A. Bartky is Professor of Education, Stanford University, California. Reported from The Clearing House, *XXXVII (December 1962), 195–98.*

THE mode of curriculum planning that invites the participation of lay citizens is an ineffective and inefficient process, disturbing of public relations, and cannot be justified in the name of democracy. It is a novel concept, made necessary by an intuitive definition of public-education purpose which is lacking in preciseness and vigor.

The obscure statements of public-education purpose in vogue today do not provide the educator with any postulates on which to predicate his own curriculum. In desperation he elects to dodge his responsibility on the assumption that if lay citizens make their own curriculum they will be satisfied, and if it keeps their children in ignorance they alone are to blame.

I shall present a specific example of a citizens' curriculum committee to make my point.

The curriculum was under attack in the district in which I reside. The superintendent elected to counter this attack with appointment of a citizens' curriculum committee. The charge to review the existing curriculum, and to make recommendations which would guide the staff in making curricular changes, virtually gave the committee the responsibility for stating public education purpose and to create school-controlled experiences that would achieve that purpose.

This displays a mystical confidence in group process, which should be shaken when one contemplates the naiveté of the group members.

I was a member of the committee, which included three women and five other men. With the exception of me, they were all prominent members of the community; i.e., they were politically oriented, vociferous, contentious, and evangelical for specific causes.

As the only educator, I was made chairman. This restricted me to management of group process and denied me the right to contribute educationally. Apparently the aim in making me chairman was to maintain the level of educational ignorance in the body of the committee.

The three women committee members were all members of a civic organization called "Mothers for Better Schools." This provided an outlet for mothers with time on their hands as a result of home automation. The three were aggressive against the superintendent and wanted him dismissed.

Each man, being a leader of a pressure group, was an evangelist for his group's values. One was a minister, one was a commander of the local American Legion, one was president of the local Chamber of Commerce, the fourth was an AFL-CIO business agent, and the fifth was a college professor. Each of these individuals had internalized his particular value system to the point where he could tolerate no other.

IDEALS DIFFER

As midwife to a curriculum that must emerge from the contributions of frustrated, neurotic, and bigoted citizens, I was at a loss as to where to begin. In desperation, I suggested that each committee member describe a curriculum product model—the ideal adult which he hoped would be the result of curricular effort. The women protested because such activity would detract from their major purpose—that of firing the superintendent. The men were more amenable to the idea, and men being the majority, my suggestion won.

Each man described his model. The result was a typology of value systems that would have done credit to a cultural anthropologist. The women listened in defiant silence.

The minister presented his model in the image of God and Christ. He expected the curriculum product to be as Christian as possible—an individual who would lead a saintly life. As long as the curriculum aimed to develop an individual who would live a life of repentance and prayer in keeping with the Holy Scripture, the minister felt he would subscribe to it.

The legionnaire harangued for a curriculum stressing the principle "My country, may she ever be right, but right or wrong, my country." In addition to leaning toward nationalism, the commander was an aggressive fighter for the *status quo,* willing to slug it out with any committeeman who he felt was a deviator.

The model curricular product for the president of the Chamber of Commerce was a successful, hard-driving, selfmade businessman who held market values. He wanted a curriculum which taught competition and which inculcated a loyalty to capitalism.

The labor representative presented his model as an unidentifiable individual who was willing to join with his fellows in a struggle to receive a fair share for his work. A curriculum that produced a noncompetitive, socialistically inclined individual was an acceptable one.

The professor saw education as a means for developing the scientist-citizen, the man with a freed intelligence, whose virtues included empirical habits of thought, critical skill, ability to suspend judgment, a desire to explore, and a tendency to be tolerant. Except for a slight bias favoring the academics, his views conformed to those held by most professional educators.

As the committee proceeded with its deliberations, it became increasingly apparent that there would be no meeting of the minds, no compromise of objectives or values. No one moved from his position; all became frustrated. One member after another withdrew from the committee, giving as reason that the superintendent was not sincere in appointing a citizens' curriculum committee. The worst kind of school-community relations resulted, and the superintendent was forced to resign—an action that could not possibly produce a curriculum.

The citizens' curriculum committee just described is a prototype. There are others which display the same characteristics with minor variations. Although created in the name of democracy, they are not necessarily democratic because they aim at a consensus of value orientation—which democracy tries to avoid. Democracy encourages value differences and protects them; it does not try to force uniformity even in the school curriculum.

HISTORICAL VIEWPOINTS

Historically, the concept of lay participation in curriculum planning is novel. It is the natural outgrowth of an ill conceived, poorly stated definition of public-education purpose—a definition that invites controversy over every effort designed to achieve that purpose.

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Until recently the definition of educational purpose was stated in operational terms. Education in ancient Israel was to teach the law; in Sparta to train soldiers; education after Christ was to impart Christian values. In each case, the definition of purpose suggested what the curriculum should be.

Early in the present century, educators relied on the authority of tradition to set public-education purpose. Prevailing tradition reflected the absolute values of a generally accepted Protestantism and intellectualism. These values could be readily defined and translated into curriculum objectives without argument. The definition of purpose continued to be operational.

Later, in reaction to traditionalism, public education adopted a science orientation. The definition of purpose remained operational. It was to teach the young the tasks performed by the adults in the prevailing society. Such a definition suggested that curriculum be grounded in activity analyses.

The first mutant in a long line of operational definitions of purpose made its appearance during the economic depression of the thirties. Disturbed by prevailing conditions, a group of college professors saw relief in a change in the social order and proposed that the purpose of education was to dictate such a change. Such a purpose was indeterminate and its means unidentifiable. The educators proceeded to develop a curriculum which they hoped would achieve the unknown.

This they were allowed to do because they had always been accepted as curriculum planners.

Occupied by a world war, the public did not at first realize the brazenness of these curriculum planners. After World War II, it began to protest. Much of the conflict today is a reflection of this public protest. In defense, educators invited the public to participate in curriculum planning.

The idea of education purposing to change social order has been abandoned, but the generally accepted stated purpose for public education is even more vague and nonoperational today. It is not a definition but a sociological concept of the role the school plays in the transmission and creation of culture. It points out that education joins the child to past and present ways of life, and informs him of foreign cultures and local subcultures surrounding him. Hopefully, it suggests that public education prepare the child for the culture that will emerge when he reaches his majority—a suggestion that asks the school to be clairvoyant. This is by no means an operational definition of purpose.

The logic of modern science is growing to insist that no statement of purpose has any meaning apart from the means that must be employed in its realization. It insists that these means be described in the definition. Hence, if educational purpose is to be achieved through a curriculum devised by a citizens' committee, such should be indicated. Since no one defines the purpose of education as being the perpetuation of the values of a committee selected at random, we can assume that such is not the case.

Public education today finds itself in a web of controversy. To extricate itself it has initiated lay participation in curriculum planning only to find itself more deeply enmeshed. I contend that the sources for controversy lie in the definition of public-education purpose and not in the means for achieving this purpose. I suggest that this purpose be stated in the most operational terms possible. Such a definition of purpose must conform to the following:

It must specify what is and what is not the province of the school.

It must indicate what can and cannot be achieved through formal education.

It must designate the range within which schools may be expected to provide for individual differences.

It must set standards of performance.

It must qualify the portions of sharing educational responsibility when necessary.

And I propose that the public be invited to accept or reject such an operational definition of public education that has been prepared by educators. This ultimate action on a proposition is much more typically democratic than is public participation of the formulation of that proposition. ●

Leadership Preparation

CURTIS PAUL RAMSEY

In Educational Leadership

MAN has been influenced by leadership from the beginning of his plural existence on this planet. The best leadership has always led man to a higher plane of humanitarian existence. The influence of an inept, evil, untimely, or insensitive leader ranges from moderate group discomfort to possible human annihilation. While the possible effects of educational leadership are not fraught with disaster to the above magnitude, the consequences of good or bad leadership are very important.

A large body of research evidence and philosophical writing exists in the field of leadership. Much is applicable in varying degrees to problems of educational leadership. What have we learned that we can put to good account?

The bitter truth is that literature since 1945 is voluminous regarding teacher, student, military, and community leadership. Relatively little, however, has been published about leadership preparation for the principal, supervisor, or superintendent.

Is adequately trained educational leadership of marginal importance? Eight years ago only slightly more than one-half of the states required specialized certification to perform as an instructional supervisor. Yet on every side we experience the dismal effects of inadequate or misapplied educational leadership—on the part of the principal, supervisor, or superintendent.

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Is leadership such a personal and intangible art that it cannot be taught—or prepared for? Ample evidence exists to suggest that it can. Celia F. Baum, in her dissertation, "Developing Competencies in Democratic Group Leadership," reported that "leaders can be trained to develop insight and perform creatively in the act of guiding, directing, or influencing people." She is supported by many others who have reported success in leadership training.

Successful leadership appears to be more an art of application, and less an exercise in scientific techniques. What a leader *knows* about his specialty, and about the structure of his group is of prime importance, but the *effect* of what he knows and does remains the crucial test of success.

Findings of many studies now support the view that preparation for successful leadership involves not so much the *cognitive* element of the potential leader as it does the *affective* elements, i.e., to become a truly effective leader, the attitudes of the leader must be changed.

Unfortunately, most preparational programs for leadership—in all avenues and enterprises—seem to focus most sharply on the academic cognitive approach to preparation.

Many executive development programs have been instituted in business and industry, although commitment to these programs has varied with the profit and loss structure of the company. Selection is still haphazard. Persons selected for executive development are generally already in outstanding leadership positions. The early identification and special selection phases have led to some concern for "prima donna" attitudes that have developed.

A more positive note—business and industrial leadership programs place great stress on human relations training and also emphasize "general" or "liberal" education. Top executives must be intelligent, knowledgeable persons. Many companies are convinced that their technical specialists have developed a myopic "trained incapacity to lead."

When the *human* nature of group membership was acknowledged, a major shift in theory of administration began to occur. Some very fruitful theories of leadership phenomenons have been suggested; leadership styles have been studied; and the dynamics of conflict in role expectations have been researched extensively.

As we have become more sophisticated in group dynamics, warnings have been issued regarding some dangers. Some of the dangers have become real. Striking evidence exists to suggest that educational leaders constantly are faced with the problems of balancing their leadership power with their concern for human values and individual uniqueness.

GENERALIST OR SPECIALIST?

Controversy continues regarding whether an educational leader is a "generalist" or a "specialist." Obviously, he must be both—but his speciality changes. He becomes a specialist in "leadership" along two dimensions. There are various labels attached to these two functional dimensions of leadership. Richard O. Carlson prefers to think in terms of the commitment to the total structure *vs.* commitment to the "tools of the organization"—the group members.

Under any label, the old and cruel dilemma of leadership function continues: command is a lonely posture, requiring constant balancing and judging responsibility to the organization, and responsibility to the individual members.

Giant strides in program development were made during the 1950's under the Kellogg Foundation's Cooperative Program in

Educational Administration. However, subsequent reports in leadership preparation are disheartening. This lamentable condition is documented in *Professional Administrators for America's Schools*, the 1960 yearbook of the American Association of School Administrators.

In the area in which the highest order of professional preparation and competence in educational leadership is needed—the superintendency—disappointingly little improvement is being made:

Entrance to programs is primarily selfselection—colleges admit students from among those who apply. Almost no real progress has been made in vigorous recruitment and careful selection of potentially outstanding educational leadership.

Few "programs" exist. Most colleges and universities offer a collegiate cafeteria of college courses, with almost no differentiation in sequence for the master's, sixth-year, or doctoral student. Courses are excessively classbound, rather than field or experience oriented. The preparation for leadership is a "bookish" chore. There is little distinction (except in amount of courses) for aspiring principals, supervisors, superintendents. Preparation is almost exclusively in the cognitive domain, with evaluation primarily an academic grade matter.

Despite the tremendous significance of several social and behavioral disciplines for the complex function of educational leadership, few reported programs of preparation reflect any direct or interrelated connection between the core school administration studies and the basic supporting disciplines.

The "programs" can hardly be considered professional programs with small, part-time, and infrequent student bodies. Very few students are so professionally inclined as to commit themselves to full-time residential study and preparation. Does professionalism, then, really exist in educational administration?

With small, fragmented programs, low financial support, and low institutional priority, most programs are defensive holding actions —rather than aggressive new efforts in experimentation and preparation for leadership.

Of shocking significance is the finding that *no* major institution (of 258 colleges and universities studied) reported courses in "Human Relations," "Interpersonal Relations," or their equivalent.

In short, it appears that we are not learning anything about leadership preparation. Almost a quarter-century of research and theory construction in the dynamics of leadership and focus on people in education has not been reflected in new program design to any significant degree.

If learning implies changed behavior (based on internalization of new knowledge coupled with the *will* to act), we have not learned much about preparation for educational leadership. ●

What Gains Have We Made?

Thirty-Year Legacy

DEAN LOBAUGH

In Overview

THERE is a conservative trend in education today. Many of us now feel that some of the changes wrought in American education in the 1930's and 1940's were an overcompensation for the shortcomings of an earlier day. In perspective, we feel that many of the positions we took in the last 30 years were unwise. In many cases, they had detrimental results:

Our emphasis on developing the "whole child" caused us to give equal stress to all aspects of human development and to neglect our special responsibility for intellectual development.

Our emphasis on the child as the center of learning resulted in an undermining of adult leadership and an underrating of adult wisdom.

Our emphasis on experience and growth as major criterions caused us to give only superficial consideration to the great contributions of the past.

Our devotion to the doctrine of interest caused us to play down the importance of hard, demanding labor in the performance of any worthwhile task.

The past 30 years, however, have left us a legacy that we should be reluctant to set aside. Experimentation, research, and experience taught us much. With this conservative trend, let us not be stampeded into an overcorrection which will cost us our legacy.

The liberal or progressive tradition led us to some important discoveries which we must strive to retain as bases for educational practices. Among the discoveries are these:

DISCOVERIES

Antisocial behavior stems from recognizable causes and can be remedied. The concept that bad behavior is a manifestation of native badness and can, therefore, be treated only by punishment was once basic to school discipline. The gradual breaking down of this concept should be considered a blessing.

Today, we recognize the necessity for certain punishments, but we also recognize that there is a definable reason behind each act of

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misbehavior and that intelligence, patience, and skill will help us to find that reason and to correct the behavior.

The only effective discipline for an independent citizen is selfdiscipline. We thought that we could teach about democracy as a political fact, demand unquestioning obedience, place all responsibility for decision-making in adult hands, and still send pupils out of school responsible for the direction of their own conduct.

We realize now the importance of training pupils gradually and thoughtfully for the exercise of selfdiscipline. We must continue this training for as long as we accord the American citizen the privilege of making free choices.

Pupils differ widely in their intellectual endowments, talents, and coordination. We always recognized these differences, but their extent and what they mean for teaching have become matters of common understanding only in the past 30 years.

We know now that, no matter how important a given fact or idea may seem to us, no mattter how hard pupils try or how relentlessly we goad them on, there are some things the less gifted will never comprehend. At the same time, we know enough now not to underrate the immense capacities of pupils at the other end of the scale.

Teaching is most effective when it recognizes readiness and timeliness. Intensive studies of child growth and development showed us that children do not develop at uniform rates, even though they may, as adults, appear to reach comparable levels. We always recognized this in the physical area, but it was modern education which saw clearly how this principle affects school children.

Today, we recognize the timeliness factor in the presentation of learning opportunities to children. We know that there is a time in the life of a child when his background and development are such that a given educational experience will have optimum meaning for him, even though he may have had the mental experience to encompass it earlier.

TOOLS OF LEARNING

Skills are merely tools of learning: we learn and grow dynamically. A favorite concept used to be that education consisted of learning the fundamentals (carefully labeled blocks of learning called "subjects," piled one on another). Schools were judged on their apparent effectiveness in teaching arithmetic, spelling, reading, or grammar.

We now know that it is unprofitable, if not impossible, to learn a subject in isolation. Most learners need to have pointed out the relationship of each subject to the whole of knowledge. Subjects are important, not in themselves, but as contributions to the whole of learning.

Though it is true that a school which fails to give its pupils the fundamental tools of learning is failing in a part of its task, it is failing *only* in a part. Tools are to work with, and we know that once the fundamentals are mastered, the pupil is ready to *begin* his education.

Education is experience. We used to think that education was something that happened to you when you went to school. We thought that teachers educated, that books educated, that school plants educated.

Now we know that education is a life process; that all experience, in some measure, educates; and that the purpose of the school is to guide experience. We know that only the experience which the individual learner undergoes, only the experience which he makes a part of himself and which, to some degree, makes him a different person, truly educates.

Materials of instruction are secondary to aims. Availability of materials used to dictate scope of program; the textbook made the course or basketball dictated the physical-education program.

Today, we choose goals first and materials second. "What do we expect to accomplish?" we ask first, and then, "What materials will we need to carry through our plans?"

This list is not exhaustive, but it is representative of gains accrued to us from the experience of the past 30 years. Out of this legacy, we can build school programs which are sound from the standpoint of the needs of the pupils we serve and sound from the standpoint of our responsibility to the society of which we are a part. ●

● WHEN we think of education, we should think first, not of a teacher or of a school, but of a learner. To paraphrase Emerson, education is simply man learning. The sole purpose of teachers, schools, and materials is to encourage and support the individual student in his learning. Anything which impedes this does not belong in a school, no matter how hallowed by tradition. Anything which can stimulate such learning belongs in every school, no matter how unconventional it is.—Alvin C. Eurich in *Definitions of Education.*

● WE are now at the end of the third decade of the national insanity known as "progressive education." This is the education where everybody passes, where the report cards are noncommital lest the failed be faced with the fact of his failure, where all move at a snail's pace so that the slowest need not be left behind, and all proceed toward adulthood in the lockstep of "togetherness."—Jenkin L. Jones, editor, *Tulsa Tribune.*

It Can Aid Everyday School Operations

Research: How It Can Be Used

ROALD F. CAMPBELL and ROBERT A. BUNNELL

In The Nation's Schools

EACH week "research" reports purporting to have implications for school operation cross the desks of school administrators. Three simple, direct questions should help to discover what is useful: What is research? Can it be used in school operation? Who should do research?

There are at least three kinds of research: status research, evaluative research, and basic research.

Status research includes all of the studies with a goal of counting, describing, identifying, or explaining the kinds and numbers of things, persons, or events in a particular problem area. Some examples would be: How many freshmen will enter high school next year, based on eighth-grade, feeder-school enrolment and population mobility projections? Is the drop-out rate higher on this side or the other side of the tracks?

These are important questions and answers may be vital to school operation, but the limitations of status research in terms of inferences suggested and new hypotheses generated must be recognized by both producers and users of it.

The second level or type of research is evaluative research. Some examples are: Do students who move through the first-semester algebra at their own rate by means of programed material score higher on achievement tests than do students who proceed at a class rate in a traditional manner? Does homogeneous grouping facilitate or hinder a school's holding power?

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Answers to questions of this kind have to precede introduction of new materials or methods as complete replacements for the old ways. Evaluative research can support a wait-and-see position if there is bandwagon pressure to make hurried changes. It can also provide leverage once good reasons for making a change are clear.

The province of basic research, the third category in this rough classification of kinds of research, is the specific hypotheses relevant to education that come from such disciplines as social psychology. Some examples: To what extent is teacher satisfaction a function of the congruence of the teacher's expectations for an ideal principal and the performance of the real principal? What is the relationship between creativity and intelligence?

Can research be used in school operation? The answer comes easily if it is remembered to start with what "is" and use findings to decide what "ought to be." An easy-to-make mistake is to expect research to come up with value judgments. This results in being committed to the concept (sometimes too convincingly) that whatever is most common is good.

Another warning: Don't *always* demand "practicality" in all research findings. A person demanding this practicality usually says that he has no quarrel with the findings, but he wishes that the report told the user how to make an application in practice. The complaint is evidence that the user is unwilling or unable to apply his philosophy to the findings to see where they fit into his scheme of what "ought to be" for his district.

Practicality is a strong argument offered for action research. Without defending or attacking action research, we can agree that any kind of research that gets caught up in "ought-to-be" questions ceases to be concerned with scientific determination of what "is" and, because it proceeds from the value systems of its producers, comes to be defended emotionally rather than analyzed objectively.

Another confusion surrounding the use of research in schools is found in the variety of ways that people see "best practices" as related to research. This confusion can be highlighted in the problem of introducing an innovation into the school.

The "best practices" idea stems from a kind of status research performed by study councils, professional organizations, or local districts in which counts are made of the number of schools that have introduced the new practice. An evaluation of the schools making the introduction is often unconsciously introduced. This evaluation is implicit rather than openly stated and more weight is given to action by schools agreed generally to be best.

The step beyond the examination of "best practices" should be the examination of relevant evaluative research. If there has been a bandwagon effect in relation to the new practice, the administrator may be frustrated in his attempt to find evaluative research that says much about the practice. He must then turn to his own resources and to other resources available to him to conduct the necessary research.

Basic research is also pertinent to the problem, and the findings relevant to the new practice being considered will have to be considered. Therefore, the administrator will be looking for the use of *basic* research in the *evaluative* research he consults for help in making the decision. With all these results in hand, he can make a decision within the framework of his philosophy.

This approach does not require throwing out the "best practices" reports; it only requires putting them into proper context relative to the total research.

HYPOTHETICAL CASE

Where does the administrator fit into all this? Let's follow an hypothetical case. In a quarterly report from the school study council, the superintendent notes an article explaining the use of blue glass in the windows of several new surburban schools. (Status research by a study council.)

Since the development of plans for the new schools had been partially financed by the "prestigious" Educational Equipment Laboratory (E.E.L.), the fact that only a few schools were doing it was overridden by the fact of *who* was doing it.

In the bibliography of the report, the superintendent found that he could get a detailed report of the pilot studies that had been conducted by the E.E.L. prior to its recommending that the new blue windows be used in the new suburban schools. (Evaluative research conducted by foundation-supported E.E.L.)

In the E.E.L. report, reference was made to some research conducted at State University, which demonstrated that students who were exposed to sunlight filtered through blue glass scored significantly higher on all tests of the annual achievement battery. (Basic research conducted by a university.)

Up to this point, use has been made of three kinds of research from three different agencies. The final decision was *not* to use the more costly blue glass because of a purely local fact discovered when a close look was given to the school building. (Status research conducted locally.) Because of the "L" shape of the school, all classrooms have either a northern or western exposure. The study at State University demonstrated conclusively that only the filtering of *direct* sunlight had any beneficial effect and the local situation ruled out the possibility of that condition.

While the content of the example is not to be taken seriously, it should help to answer the questions of who should do the research and how research can be used.

As each administrator develops his approach to research, he will have to seek answers to a number of questions. First, everything that crosses his desk entitled, "Research Report," will have to be classified as status, evaluative, or basic research, or not research at all. The question of usefulness to his school will be answered to a large extent by this classification.

By being sensitive to the kinds of "is" information that each kind of research can give him, the administrator will be better able to apply his philosophy of education and make the "ought-to-be" decisions required of him. Certainly he will avoid being stampeded into a change for the sake of change on the grounds that it is "best practice," or "practice of the best." ●

ize that business skills are vital to advancement in any chosen careeer — law, public relations, executive, etc.

To bring about this realization, several points must be emphasized.

College education does not guarantee success; it does not even guarantee a job! Educational background plays a vital role in securing a position, but special abilities and individual initiative are equally important.

Girls will not work a few years, marry, settle down to rear a family, and live a life as a housewife. This pattern is no longer a part of our culture. The U.S. Department of Labor studies reveal a probability that the average American teenage girl can expect to work no less than 25 years of her life—even if she does marry and have children.

Provision must be made for the student who does not finish college. Too often the high expectations parents have when sending their offspring off to college are shattered when the son or daughter returns home—leaving college—after one semester, one year, or two years. The reason for leaving college may be any one or combination of reasons, including lack of money, change of plans, lack of interest, marriage, or an inability to perform the work.

A most pitiful experience today has to be the meeting of parents and student immediately following flunking out of college, either because of inability to do the work or a general lack of interest. Will these students use the intelligence that enabled them to enter college to pursue other areas of post-high-school education—or will they accept a job beneath their ability? Will they be soured on education and refuse to enter another educational institution of any kind, reconciling themselves to a dead-end lifetime job?

Dropping out of college would not be so disastrous if these students had been able to obtain courses for college entrance and at the same time acquire business or other vocational skills. Better, if they had investigated all areas of post-high-school education, they might have decided that a regular college was not the best selection and they could benefit more from attending a business college or other vocational institution.

The student will probably not make a really intelligent decision regarding his future until parents come to realize that education and not prestige is the factor that will lead to their child's success—and that what is a good education for one may not be a good education for another.

Parents and educators should set to work to provide opportunity to high-school students to take subjects of a vocational nature while fulfilling academic requirements necessary to qualify for many excellent colleges. They should assist students in choosing between a variety of post-high-school opportunities and eliminate the "college or nothing" choice.

●

Are Students Being Oversold on College Prep Courses?

Well Educated to Do Nothing?

VERNON A. MAGNESEN

In Illinois Education

"MISS Wilson, your application shows an excellent educational record—but what exactly are you prepared to do?"

"I took four years of mathematics in high school and also physics and chemistry. My counselor said I should have a solid background in science and mathematics to qualify for the best colleges.

"I graduated in the upper 10 percent of my class—that's important, you know—to get into the best colleges. I did especially well on the National Merit Scholarship examination."

"Wonderful. But what kind of work are you prepared to do?"

"I attended a very expensive Eastern college; it cost my parents about $8,000 to give me this liberal arts education."

"Miss Wilson, what can you do?"

"Nobody ever told me I'd have to do anything!"

This conversation, purely fictional, could take place. It probably does take place during many employment interviews as a result of the prevalent attitude that a college degree means a line of employers waiting on the steps of the vine-covered building to offer the graduate his choice of jobs in the world of business. It results from today's parents reacting to pressures and forcing their children into every possible general-education course to meet entrance requirements of every college in the nation. It results from colleges tightening their entrance requirements by demanding more mathematics, more science, more language. It results from the fantastic belief that to compete with Russia everybody must be a scientist or mathematician.

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If conditions persist, our nation could be faced with a problem with complications almost beyond understanding—a surplus of people well educated to do nothing, the largest number of unemployed intellectuals in history!

To combat the present trend, schools must provide for occupational training as well as college entrance. A student must not be forced to choose between attending college and acquiring job skills but must be given an opportunity to have both. Parents, students, and educators must be brought to real-

The Procedure Is Easy

How to Cash in on Government Surplus

In School Management

MAINTENANCE equipment, utility trucks, milling machines, metal lathes . . .

These and hundreds of other items have been donated to this nation's school systems during the last five years. There is no surprise at the amount of items donated—it is surprising to note the amount that is offered and never claimed. During the last five years, the Air Force alone has offered more than $12 billion worth of excess material to the nation's schools—but less than 2 percent ($300,000,000) has been claimed.

There are three possible explanations for a school district not taking full advantage of this windfall:

First, the district is so wealthy it can afford to buy every piece of equipment it can use.

Second, nothing offered was of value to the district (unlikely), or staff members would not take the time to sift through what was offered to find something that was needed.

Third, there is a lack of information on how or where to claim the materials.

The last item can be handled by examining how one federal government unit (Air Force) makes surplus equipment available. Other agencies follow similar procedures.

In the Air Force, changes in defense needs cause a constant influx of new materials and machinery. This tide of new materials creates vast quantities of excess equipment. Storage would not be economical, and to save money the material is declared surplus.

This surplus property is then offered to the Air Force reserve and other Air Force units. Then it is offered to other military services and federal agencies. Certain groups with activities of special interest to the Air Force—Boy Scouts, Girl Scouts, Civil Air Patrol—may then claim property as donations.

Finally, with the greatest bulk of the surplus still intact, notification is sent to the Department of Health, Education and Welfare which passes word along to state agencies for surplus property. State representatives then visit Air Force bases and screen the surplus material. Their selections are removed for distribution to schools, hospitals, and civil defense organizations.

Reported from School Management, *VI (December 1962), 43–45.*

The procedure for obtaining this material is easy. It does require a little time, energy, and imagination.

1. Contact your state surplus property agency.

2. Make arrangements to send a committee to your state surplus warehouse. It is wise to include science teachers, shop teachers, maintenance personnel, and business officials on the committee.

3. Make up a list of equipment and materials you could use and leave it with your state agency so that personnel there can be on the lookout for the items.

4. Be imaginative. To take greater advantage of these donations, many schools are putting materials to work doing things they were not primarily designed to do. The Tulsa, Oklahoma, public schools saved $50,000 by acquiring a crane from the Air Force and using school maintenance people for an extensive dirt-moving operation. The only cost to the district was the cost of transporting the crane. Other institutions are using fork lifts as ladders for cleaning windows and trimming trees, and converting small warehouse tugs to operate as handy utility trucks. Some schools have harnessed the small tug motors to operate as power for lawn mowers.

In short, by using a little ingenuity and invention, many schools have been able to take advantage of free or inexpensive offerings that otherwise would appear to be useless.

Two arguments have been advanced against the use of surplus property. The first, that there's too much red tape, is unavoidable. But state agencies are supposed to expedite the removal of surplus property. If they do not, a word to your Congressman should clear the way.

The second argument—that anything "free" from the government still costs the taxpayer money—misses a basic point. The taxpayers have already paid for this equipment, they can't get that money back, and if the schools use this surplus they will be extending the use of tax dollars.

Much of this equipment is still being sold at public sales to private firms and individuals—the final step in the Air Force program. These sales realize only a small percentage of the potential worth of the property. It could be of far greater value when used by the schools. ●

Surplus Remarks?

From references furnished by would-be Peace Corps Volunteers: "The applicant appears to be making good strides developing from a shy, selfconscious girl into a persevering, selfconfident lad." "Recently her folks are working, but before that her father was a minister." "Even police that have arrested him in the past state they like him."

Any One Flunk in Sand-Pile?

Kindergarten and the Forward Look

ETHEL G. SASSMAN

In

Philadelphia Teachers Association News Letter

WHEN our Supplement to the Kindergarten Guide was issued, I was panic-stricken. Topics to be covered were "Visual Discrimination," "Visual Perception," "Quantitative Concepts," "Geometric Concepts," "Space Relationships," etc. Happily, before handing in my resignation, I discovered there was little mentioned in the guide that we had not always done in kindergarten. I just didn't recognize such formidable titles.

Take "Space Relationship," for example. I was afraid of that one, having once heard a speaker say that children should not be made to walk through the halls in orderly fashion. It seems that when children leap into the air they are not misbehaving but merely exploring space.

According to the Guide, space relationship does not mean that at all. One suggested activity is to walk with children through the school to learn where various offices are located. We have always done that, joyfully unaware that it was a reading-readiness activity. We thought it was learning where the infirmary was so that in the event of a skinned knee one could find the nurse rather than winding up in the midst of the tuba players in the music room.

Under the heading "Money," it is suggested that we learn the denominations as money is dropped in the Red Cross box. I am sorry but we will have to learn some other way. Collecting milk money, Red Cross money, United Fund money, Health Fund money, Spring Luncheon money, Mae Desmond money, and Cup Cake Sale money is not enough? We now have to learn what kind it is? Uh-uh. I've seen so much money I don't even like the stuff—and I used to be crazy about it.

Under "Developing Speaking Ability" we are told, "Allow for free flow of spontaneous conversation." Allow! Just try to stop it. The Guide also says that teachers must be good listeners. We have a choice? Kindergarten teachers are the best listeners in the world. For

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years we have been trying to get in a word.

There is one sentence under this topic I enjoy: "Reduce to a minimum conditions that are distracting or disturbing." I'd reduce them to extinction if I could get away with it. There are messengers by the dozen, termite men, plumbers, snow plows under the window in winter and power mowers in summer, jet planes, and children squirting water into the air from the drinking fountain—which is under my window. I tried to reduce this water-squirting disturbance (just once) by thrusting my head out the window.

We are also told not to stifle a child with a speech handicap. I wish I could stifle the one in my group—just a little—please? He never stops talking. I once asked him to please be quiet for a moment and he looked so sad that after a while I told him to cheer up and we would forget the whole unhappy incident. He responded with a lusty whack on my back and said, "Now 'ats a sensiboo vay to put it." He hasn't stopped talking since.

The only real problem in this reading-readiness program is in the use of devices and charts. The Guide neglected to say where to put them. We are not all in new schools with built-in shelves.

The Guide also neglects to explain what good the charts do. For example, a weather chart seems to be important. I spent hours making one. It's enormous and looks like a pie divided into wedges. Each wedge depicts a different kind of weather. The arrow in the center must be pointed to the proper wedge. It seems to me that if a child walks three blocks in the pouring rain, comes dripping into school, and still doesn't know its raining, he is beyond the help of a weather chart.

Now we should also have a helper chart, on which there is a picture of a cookie with Penelope's name card in a slot beside it. Of course, you still have to say, "Penelope, please serve the cookies," because Penelope doesn't know that's her name up there unless she's told.

We do not have a chart in our room because we do not serve each other at snack time. I feel that my children will not have a retinue of servants when they grow up—we are more the automat-supermarket type so we serve ourselves. It also cuts in half the time it takes to get milk and cookies into them.

All this excitement over kindergarten is a bit of a nuisance but very flattering. Remember a couple of years ago when there was talk of doing away with "frills" in education—namely driver training and kindergarten? Now kindergarten is so important no child can survive without it.

The next time some wag says to me, "Flunked anybody in sand-pile lately?" he'd better have his track shoes on. I don't teach that any more. I'm a specialist in visual perception and space relationship. ●

Avoided More than Neglected

Sex Education

PHYLLIS and EBERHARD KRONHAUSEN

In Teachers College Record

Phyllis and Eberhard Kronhausen, who are authors of several books on sex and morals, live in New York City. Reported from Teachers College Record, *LXIV (January 1963), 321–330.*

TO say that sex education is the most neglected area of instruction is a gross understatement. It is not only neglected, it is actively and scrupulously avoided. In most of the world, with such rare exceptions as Sweden, where sex education is compulsory from kindergarten on, it is much easier to come by sexual experience than to gain accurate information.

In America, where progressive education and psychoanalysis took roots more deeply and were more widely accepted than in the European countries, sex education has fared no better than anywhere else, and sometimes worse.

Why should one be concerned over the lack of sexual knowledge and instruction? There are many areas in which instruction is faulty and knowledge less than what might be desired. Why single out sex? Why not stress mathematics, communication skills, or the development of a social intelligence?

The reason for concern is that educational neglect and trouble in the sexual area are not isolated phenomenons but have a great deal to do with learning or not learning in other areas as well. General neglect, in the home and in the school, is therefore more serious than any other.

Sexual curiosity awakens early in the growing child, and if it is not satisfied but squashed and discouraged, it may produce a more general intellectual inhibition or dulling of interest and set up learning blocks which are not directly related to sexuality. If this happens, it can seriously cripple the intellectual development and lay the foundations for later unfortunate personal limitations on creative potential, achievement, and efficiency.

There is good reason to believe that the same educational and emotional neglects of the maturing individual contribute a significant share to any number of socially undesirable character formations and unhappy personal adaptations which are no less deplorable for being generally taken for granted in our society. Sex education is not a matter of choice or special interests, but of a more fundamental nature, especially demanding of attention in a society such as ours, which is probably more conflicted in this area than in any other.

Thus, the first thing to remember is that sex education cannot take place in a vacuum. It cannot be a dessert on an overcrowded educational menu. Ideally and intrinsically, sex education is part of a core curriculum. Its subject matter consists of a kind of knowledge which can only be imparted effectively in a multidisciplined approach involving various departments and courses of study, at any educational level.

A word of caution and explanation is in order. When we speak of "sex education" in its more physical, biological, and psychological aspects, we do not wish to convey an approach that is purely materialistic or physical. Nothing could be more from our thinking. The spiritual and love aspects of sexuality are fundamentally important to our topic; they are not stressed in the present context because of the complexity of the topic and a wish to avoid confusion. Moreover, we feel that this side has been more adequately treated in the literature and acknowledged in education.

In our society, any attempt to tamper with the sex education of the very young would certainly meet with violent opposition from parent groups. But once the child is old enough to have a mind of his own and a certain amount of discretion, it is not utopian to suggest that even the public schools can do a good and effective job of sex education. The conception of sex education not as an isolated subject, but as an integral part of the total curriculum should make this task easier for the schools and should make educators less vulnerable to outside criticism and attack.

STEPS INDICATED

How would such a program work in actual practice? With present attitudes, it would, even at best, be practicable only in part. We can do little more than indicate what we consider steps in the right direction. We shall focus our discussion mainly on sex education at the high-school and college levels.

The most obvious points of contact between traditional subjects and a functional program of sex education are the natural sciences. In biology, the case is clear-cut. Instead of stopping with the flowers or even the birds and bees, a teacher can simply go on to discuss the sex life of the higher mammals, including the human being. If teachers are themselves lacking in knowledge, the existing ignorance can easily be overcome by appropriate readings supplemented by lectures and seminars on a postgraduate basis.

In chemistry, it would be fascinating to include in the curriculum, particularly at the college level, information on the chemistry of the sexual functions—for instance, the structure and function of the various hormones and the chemical interactions which accompany the processes of reproduction.

In our studies and discussions with scores of teachers and educators, we have found that where sex education bogs down is on the question of actual sexual behavior, not on the matter of theory. We, therefore, advocate including in a total sex-education program not only the procreative aspects of sex in general (physiology of conception, foetus growth, etc.), but also the specific copulatory behavior of humans and animals. It is this type of information with which the growing child is specially concerned, and it is precisely this which is most zealously withheld from him. This type of information can be handled in a dignified and objective manner, even with younger students, provided the social and emotional conditions make such an approach at all possible.

It may be surprising—even shocking to some—that we would like the prospective teacher of sex education to inform himself, and to include in his instruction, material on certain forms of "abnormal" sexuality—for instance, homosexuality and other common deviations of the sexual impulse with which the maturing individual is often deeply concerned or which he is likely to encounter sooner or later.

Sex education must include, without arousing anxiety, objective and accurate discussions of venereal diseases and the basic principles of prevention and treatment.

We think it important to find a way to adequately prepare young people of college age for the problems involved in the frequent disturbances of potency in the male and of inadequate sex response in the female. They can then be better able emotionally to avoid them altogether or in a better position to cope with them.

All this we believe could be accomplished without offending the sensitivity of the adolescent and young adult wherever enlightened community and academic standards make honesty without sensationalism possible.

EXPLORE MORAL QUESTIONS

Certainly, sex education must come to grips with the facts of pregnancy, both wanted and unwanted, and of the most effective measures of birth control from the rhythm method to the chemistry and function of the latest oral pills. The moral questions involved must not be avoided, but fully explored in an objective nonsectarian way.

A number of still more troublesome problems need to be looked into because they concern an increasing proportion of our high-school and college population. Among these items in urgent need of rational examination by educators and their charges are the legal and medical aspects of voluntary termination of pregnancy, its possible alternatives, particularly the legal and social situation of the unmarried mother and her child.

As emotionally loaded as these issues are, they should be taken up not later than in the secondary school. It is in the younger age groups that these problems, due in large part to prevailing social attitudes, are frequently accompanied by the most tragic and devastating consequences of all.

LESS CONTROVERSIAL

It is obvious that we are, as far as the average school situation is concerned, a considerable distance from the degree of social maturity necessary to permit such a program of this type. However, not all aspects of sexuality and family life are quite as controversial. With somewhat greater equanimity we can approach the legal side of marriage — divorce, annulment, adoption, and similar matters— about which the public is usually very poorly informed. This lack could easily be remedied through appropriate units in social science, civics, or home economics.

In the same manner, traditional subjects of history and foreign languages could contribute to an integrated program of sex education. A certain amount of material on the different patterns of sexual custom and family organization from one period and from one civilization to another could be included in the subject matter of these courses.

The inclusion of such items would be accepted more readily by teachers and students because these subjects have already become much more responsive to their cultural backgrounds and their social consequences over the past few years. The suggestion would mean only a small additional step in the same general direction.

In the area of literature, our schools have traditionally missed another golden opportunity for linking the physical aspect of sexuality, as emphasized by the natural sciences, with their emotional and moral correlates. Many of the literary works presently studied in high school and college contain references to sexual behavior which excel in psychological lucidity, keenness of observation, and philosophical depth, better than the most carefully prepared case studies could possibly provide. Only inventive employment of this available material is needed, instead of ignoring it.

The same, appalling attitude is evident in the practiced educational blackout of high-caliber erotic art, including works from Rembrandt and earlier to Piscasso. This material is extremely rich in sociological, historical, and psychological insight and information for those able to use it in this fashion.

We have no doubt overstressed the case for an integrated and functional program of sex education on all levels of emotional maturity and learning readiness. We risk this only to clarify issues and because we do not conceive of sex education or sexual reform as ends in themselves. We regard them as fundamental to and part of an evolving new social organization and a new general ethic in which man's attitude toward his body, his sexual impulse, and the love of one's fellow men are only important parts of a larger philosophy of social construction.

●

One Reinforces the Other

Early Writing as an Aid to Reading

GERTRUDE HILDRETH

In Elementary English

TODAY, the concern over improvement of reading results in a tendency to lengthen the daily reading time, step up word drills, and require more extensive use of texts and workbooks. It may be more productive to introduce writing earlier, and to relate writing closely to the initial reading experience.

Judging from observations of primary-school pupils and facts about the interrelationships between the two processes, learning to read is reinforced by simultaneous experience in writing. Reading and writing are both forms of language expressed with a common graphic symbol system representing the spoken language; the *ABC's*, for English. Whether a child is reading or spelling, he is dealing with the same set of phonic elements represented with the same graphic symbols.

It is rare to find a child who can express ideas in writing, however simple, who cannot read. Those who are unable to read can scarcely write their names or spell the simplest words. Older slow readers tend to be semiliterates, retarded in all phases of written expression.

The tendency to keep reading and writing apart in beginning reading instruction is unfortunate because of the mutual relationships between the two processes. Pushing reading far ahead means that the two skills cannot be mutually reinforced to the fullest extent; and that writing, in contrast to reading, will seem to be a tedious, difficult task.

The key to writing as an aid to reading in the early stages lies in the use of manuscript-style writing, which more closely resembles the type of the printed page. Cursive-style writing has less carry-over to beginning reading because the slanted letter forms differ from print and because it takes longer to learn to achieve a practical script for expressive writing. With manuscript writing the child begins immediately using his writing to record his favorite language patterns.

Evidence of children's early interest in writing is proof of readiness by beginning school age. The typical school beginner is apt to

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have shown some interest by being able to write his first name and print other letters and numbers. When very young children play school, they are more apt to think of school work as writing and spelling than reading or other school activities.

ADVANTAGES

The advantages of early writing as an aid to reading are many. Writing is an active motor-muscular response which produces word patterns that are perceived visually. The motor response aids memory of the letter forms and words. The young writer must observe how each word and the separate elements in each word are formed. To write the separate letters, to copy short words, to print his name are comparatively simple tasks that give a beginner the satisfaction of seeing tangible results.

Restless young boys whose attention wanders during reading, who can't find the page or keep the place, who lose interest in little stories foreign to their background and interests, may be able to give attention to copying and writing experiences which entail overt activity and relate to themselves. Passive children and those lacking selfconfidence, who seem overwhelmed by a page of print, may be able to concentrate on a bit of writing.

Learning to write acquaints the beginners with the *ABC*'s. Instead of merely looking at the letters and naming them or trying to spot them in printed words, the child in writing must construct the letters from memory or actively copy them. Here is the most sure way of fixing the letter forms in mind and learning their names.

No writing can be done without recalling the letter forms and their standard arrangement in common words. Writing and copying words forces the writer to pay attention to details, to likenesses and differences, peculiarities, or unusual features. Writing helps the beginner to catch on to the make-up of a word such as *between*, or *circus*, or *party*.

Discrimination of similar appearing words is sharpened by the writing-spelling experience: *who-how, where-when, this-that, farther-father, brook-broke.*

Writing is a means of recognizing and concentrating on phonetically irregular words, their appearance and distinctive features, *e.g., knife, through, tough, many.*

Reversals and other confusions straighten out as children practice writing the confusing words and then pronouncing them. "Spelling-out" is objectionable in reading because it slows down word recognition and interferes with thought getting. In writing, on the contrary, spelling-out is essential in building up the separate words.

Teachers have expressed surprise at the difficulty children experience in detecting the initial sounds and component parts within printed words, *e.g.*, the *s* in *song, say, see;* the *m* in *mother, my, most.* Composing words by their sounds as in written spelling forces the child to say and see the parts in words. As the child writes and spells, he can see the need of matching letters to sounds. In writing words from memory, the child must think of the succession of sounds within words and try to call up a visual impression of the word parts, all valuable aids in reading.

Writing furnishes practice in using words in meaningful sentences, strengthening the association between word forms and their meanings, and increasing the child's familiarity with sentence patterns. The pupil begins to recognize the different kinds of sentences used in expression, and the conventional punctuation of sentences required in writing, all of which contributes to reading comprehension. The value of sentence punctuation for reading becomes more obvious as the children themselves learn to punctuate the sentences they write.

Another value of writing is that it accustoms the learner to move across the lines in a left-to-right direction. Thus eye-hand coordination in writing helps train the eye-movements required in reading.

In view of the foregoing, it seems advisable to provide informal writing experiences for children early in the first grade, devoting as much time to writing as to reading in beginning instruction.

The writing tools need not be limited to chalk or bulky pencils. The beginner may find more satisfaction in "writing" with brush and water colors, or he may enjoy using a felt marker or printing the letters with finger paints.

Writing practice is too often identified with penmanship drills, push-and-pull exercises, with mechanical aspects having no relation to linguistic experience. Actually, there is no real writing apart from "writing something," words to spell or sentences that need to be written. The recommendation is to make writing a functional skill, serving the child's real purposes of communication from the beginning.

In the normal course of events, reading will soon outdistance writing, both because of the nature of the process and difficulties with English spelling. But the rapid gains in reading will be due in part to the early experience with writing.

These conclusions and recommendations have special significance for slow-learners, for non-English speaking children learning literacy, for students learning to read foreign languages, and for illiterate adults learning to read and write. Adult literacy programs would benefit from adopting a program combining practice in reading and functional writing, all related to oral expression used in daily living.

This relation of writing and reading provides a most promising area for research. Much valuable knowledge might be gained from experiments set up to explore fully the possibilities of early writing experience as an aid to reading through the link with oral expression. •

Take the Danger out of Sports!

HAROLD L. LITTLEDALE

In Parents' Magazine

SOONER or later every parent finds his youngster anxious to try some hazardous sport, and the parent's permission is sought. Although we are aware that most sports are fun and good exercise, there is still worry about the kids. How much danger is there? Statistics are hard to assess, but the warning signals are flying.

The National Safety Council's latest spot-check of in-school accidents to children around the country from kindergarten through twelfth grade showed that nearly half of all accidents occurred while youngsters played organized games. Accidents on playground apparatus accounted for more than half of the mishaps to youngsters from kindergarten through second grade. Baseball accidents were most frequent during fifth and tenth grades. Basketball became a significant cause of injury beginning in the seventh grade. Football took over as a major factor in ninth grade, and by the senior year it accounted for almost 50 percent of all organized-game accidents and 32 percent of all in-school accidents from any source.

Child development experts say one big reason accidents happen is that children don't recognize fatigue signals and tend to play when overtired. Growth, the experts say, takes energy, especially when the growing is rapid. The more energy needed for growing—especially during the crucial preadolescence—the less energy there is to spare for games.

This is why many growth experts agree that the most demanding sports should be lopped from the early-high-school student's schedule. All body-contact sports, they add, particularly football, boxing, wrestling, and ice hockey, should be out for preteens. Sports usually recommended are touch football, for those preteens who must belabor the pigskin, and the individual sports—golf, bowling, swimming, tennis.

Doctors will not give a precise list of approved sports for a preteen child. Too much depends on

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individual growth patterns; not just a matter of height and weight, but growth as what is taking place with bones, muscles, internal organs which—through age 20—increase their capacity to function effectively.

A child's growth at any given stage is called physiologic age. This can deviate considerably from a child's chronological age. Two youngsters born during the same month may vary by some three years in their physiologic age. This is best measured by X-ray pictures, muscle development tests, electrocardiograms, and other devices.

During the past few years there has been a growing concern about the physical condition of American youth. A number of physical-education instructors say that our youngsters are spending too much time just sitting or riding around in cars. President Kennedy has said that professionalism in sports is turning us into a nation of spectators. Our youngsters tell us that school pressures leave less time for play than there used to be.

Athletic coaches believe that there would be fewer playing-field injuries if our children exercised more. Many elementary and secondary schools around the country are including in their schedules a basic physical fitness program recommended by the President's Council on Youth Fitness and calling for stepped-up emphasis on exercise around the home—walking, running, vigorous work in the open air.

The American Medical Association says that progressive physical conditioning programs, including running, calisthenics, drills, stunts and contests, should be offered in all schools. They add that no school team games should be played without a minimum of two weeks of physical conditioning first, and a 15-minute warm-up period is recommended before each game.

The AMA doctors agree with school coaches that training in the techniques of play and the rules of competition can cut down sports injuries. The player who knows how to play the game knows how to keep clear of most serious trouble. Both doctors and coaches agree that strict enforcement of rules by competent officials is a safety must. Continued revision of rules to guard against dangers from new methods of play is encouraged.

PROPER EQUIPMENT

Child development experts, doctors, and coaches are in agreement that proper protective equipment is also a must in contact sports. Proper equipment is expensive, but it pays returns in preventing injury. The equipment needs to fit perfectly; hand-me-downs should never be used. Much of their protective strength may have been played out by previous use.

A great deal has been done in recent years to improve sports equipment. New plastics with greater shock absorbing powers have been developed. New designs in body padding are decreasing the once-high incidence of internal and abdominal injuries. But there is much more to be done.

For example, doctors are looking for an efficient, mobile, inexpensive knee support to cut down the knee injuries common in contact sports. New football helmet designs are needed to cut down the mounting rate of head injuries—the cause of 70 percent of all fatal football accidents.

A spokesman for the American College of Sports Medicine says that in addition to the need for better equipment there is a need for rules ensuring proper use of the equipment. The National Football Alliance has ruled that all affiliated high schools and colleges must provide mouth guards for football varsity squads this fall. A further necessary step, according to dentists, is to make the plastic device, properly fitted, required equipment for all youngsters playing football—including the pint-sized "Pop Warner" leagues.

Game rules, too, can be changed to provide greater protection for young sports participants, coaches and doctors say. Many fractures could be avoided in baseball by a rule against sliding. General use of the "quick whistle" could make football competition safer. Uniform rules on equipment could prevent the dangerous lop-sidedness of letting ill-equipped youngsters play against well-protected youngsters.

Any sports program should on occasion be subjected to some honest searching questions. Are sports carried on with the health and recreational interests of children in mind, or is there a catering to the wishes of adults? Is having fun under safe conditions the first consideration in your community's sports programs, or is having the glory of a winning team first on the list? Were your coaches hired to help your children safely along the road to physical maturity as well as to win? Sports can and will be fun so long as all the rules start with safety. ●

● PHYSICAL education has been on dead center long enough. Skill, sweat, and strength should not be the only factors in the program; physical education should involve the mind, not just the muscles.—Charles G. Cowell in *The Growing Years: Adolescence.*

● WHILE education purports to teach the "whole child," it is becoming more and more apparent that, under modern living conditions, education has an equally important task to keep the "child whole" long enough to enjoy the benefits of his schooling.—*W. K. Streit,* Cincinnati Public Schools.

● MAN is powerless against small pains. He can feel a kind of pride in having broken his leg, but he can feel none in breaking a fingernail.—*Karel C. Capek.*

Ideals Relating to the Structure of History

History for the Elementary-School Child

VINCENT R. ROGERS

In Phi Delta Kappan

DURING a study of the westward movement, a group of 10-year-olds is told to imagine that they are living on a rocky, unproductive, New England farm in the year 1867. One evening, an older brother bursts into the kitchen with a poster. It says that the Union Pacific Railroad is offering new lands for sale in Kansas. The land is said to be fertile, abundant, and cheap. Schools and churches have been built, and there will be no taxes for six years. The family gathers around to read the poster.

Now the class is asked, "What do you suppose the family will do?" The quick, common reaction is, "They'd move to Kansas!" The teacher then suggests they try acting out the story, with different pupils playing the roles of various family members.

Each "actor" is given a card telling something about his character. Father knew the farm was failing and felt he had little choice. Grandfather had brought his family from Scotland 50 years ago. His wife is buried here, this is home to him, and he has had enough of travel. The oldest son loves adventure and wants desperately to go, while the 16-year-old daughter is in love with the boy on the next farm.

When the play is finally dramatized, the decision turns out to be far more difficult than the children had first imagined. In the final analysis, the class is evenly divided on the issue of whether the family should go or stay.

The above is a description of one of several "lessons" being carried out with various groups of elementary-school children at the University of Minnesota's demonstration centers.

Each of the "lessons" is designed to help children understand some element or strand in the "structure" of history. They represent the first

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halting steps in an attempt to strengthen and improve children's early encounters with history.

In this matter of teaching history to elementary-school children, we seem to have more than our share of diagnosticians while suffering from a shortage of therapists.

A good share of the volumes of criticism during the last decade complains that in teaching history at the elementary-school level, history is approached generally as a precise body of knowledge, proven beyond doubt, and ready to be mastered by students; the textbook is still the basic teaching tool; and at the elementary level, texts tend to be unrealistic, overly idealistic, and often lack the stimulating detail necessary to give meaning to the broad generalizations they employ freely.

One might add that, in current programs, children are seldom asked to use thinking processes characterized as "divergent" (independent or original work that gives students an opportunity to discover ideas for themselves), or "evaluative" (work involving critical thinking, judging, selecting, and organizing).

STRUCTURE OF HISTORY

A few short years ago Jerome Bruner tantalized many of us with the publication of *The Process of Education*. While most of the examples and illustrations used were drawn from mathematics and physics, Bruner does make two points vitally important to those seeking to improve the teaching of history in the elementary school: First is his concept of the structure of a discipline; that is, the importance of a child's understanding of the underlying principles of a given field of knowledge. Second is the importance he attaches to presenting basic ideas to young children in a form they can understand.

If one accepts the assumption that an understanding of the structure of history is of vital importance and that structure can be taught to young children, where, then, do we go from here?

The first step is to decide what basic principles comprise history's structure. Apparently this has been effectively accomplished in science and mathematics. History still awaits this treatment. This is understandable because man's behavior is a complex thing and exceedingly difficult to classify. Nevertheless, first steps must be taken, and the following analysis is offered as a possible beginning.

It appears to me that ideas related to the structure of history tend to cluster around three major hubs: ideas related to the methodology of history; ideas related to the nature and goals of history; and ideas related to the content, the people, and events that comprise history.

The sample ideas presented under the headings below represent important principles forming the foundation for a mature understanding of history. I am suggesting that much of this can be taught to and understood by young children. I suggest further that the content chosen to aid in the development of these ideas (a unit on the community, the westward movement, or colonial life, for example) is of secondary importance to the principles themselves.

SAMPLE IDEAS

Ideas related to nature, goals of history.—History attempts to delineate, assess, interpret, and give a relative place to the efforts of people, important ideas, and great national achievements.

History is not a body of precise, memorizable facts; history is, in a sense, constant controversy. Historians do not always agree. Interpretations change as man examines events at different times and in different places.

History provides us with a series of case histories that may help us deal with contemporary affairs; history does not, however, offer us revealed, unchanging laws or patterns of events.

All historical events were, at one time, "open questions," just as today's decisions (which will become tomorrow's history) are similarly open. We may only evaluate the choices made in the past and attempt to find meaningful alternatives or possibilities for today's decisions.

Ideas related to content of history.—Change has been a universal condition of human society. Change and progress, however, are not necessarily synonymous.

Races, cultures, and civilizations in various historical periods have made contributions to the growth of our present civilizations.

Mankind has been motivated by morals and ideals and by material wants and needs.

While physical environments in many places and regions have been altered, human motives or drives have remained nearly the same.

Peaceful cooperation is one of man's worthiest, earliest, and most persistent historical experiences. Conflict and hostility, however, are also within man's experience.

In the contemporary world, historical events affect people and places far beyond the limits of the place of their origin.

Men in every age and place have made use of basic social functions, such as educating, transporting, communicating, etc., in adjusting to the world.

Ideas related to method of history.—The historian works basically with primary sources such as letters, diaries, travelers' logs, newspapers, and magazines. These are the "stuff" of history.

The historian draws conclusions, formulates principles, and makes generalizations on the basis of his study and interpretation of primary sources.

In evaluating sources, the historian is concerned with authenticity of his material; he recognizes, for example, that elapsed time between occurrence and reporting of an event often affect the accuracy of reporting the event; he is concerned with the author of his report, his interests, qualifications, and biases.

The historian recognizes that one's feelings and emotions, his drives and motives, may often affect how one interprets a given event.

The historian looks at historical events with an appropriate perspective. For example, one might gage the real heartbreak and suffering involved in the Pilgrims' coming to America or the pioneers' moving west in relation to the hardships of life in general at this time.

The historian is aware that advances in historical scholarship, discoveries of new sources of information, may necessitate a reevaluation of his conclusions and generalizations.

This listing of ideas is not suggested as complete or unchanging. It is a beginning statement or working paper that has proven useful in development of materials and techniques in teaching history to elementary-school children.

Experiences such as the one described at the beginning of this article are related directly to one or more of the basic historical principles described above. As experiments continue with materials and techniques, we are attempting to discover whether children do begin to understand the method of history; whether they are able to apply generalizations to other problems and other content.

We are also curious about the types of children who are able to work sucessfully with these materials. We wonder, too, whether so-called "average" teachers (with appropriate manuals and guides) will be able to work effectively with these materials. At the moment, precise answers to these questions are not yet available. We are, however, both encouraged with, and enthusiastic about, current progress and future possibilities. •

- A SURE sign you're getting older is when your youngsters tell you about their history lessons and you realize that when you went to school the same items were called "current events."—From *Woodmen of the World Magazine*.
- FROM a student test paper: The cause of the American Revolution was taxation without relaxation.—From *Mississippi Educational Advance*.
- THE sixth graders were discussing their social-studies lesson. The teacher asked, "What was the name of the channel where the British fleet fought the Spanish Armada?" One pupil answered, "I think it was Channel Five." —From *NEA Journal*.
- SEEING ourselves as others see us wouldn't do much good. We wouldn't believe what we saw.—From *Midland Schools*.

1963

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

Congressional Scene.—The auguries were not hopeful as the President's 182-page omnibus "National Education Improvement Act of 1963" began its journey through the legislative process with public hearings and closed-door consideration by the House Committee on Education and Labor. Chairman Adam Clayton Powell (D-N.Y.) observed at the outset: "I want to be politically realistic and point out that this bill (H.R. 3000) as it is now before us might not come out of the Committee on Education and Labor, probably would not get a rule, and if it did, would be emasculated on the floor of the House or in conference."

Among the reasons for Rep. Powell's pessimism were the high ultimate cost of the President's proposals at a time when the chief business before Congress is cutting taxes, the combination of popular and unpopular programs into one big bill, and the Administration's refusal to request construction grants for private elementary and secondary schools. Other members of his committee expressed dissatisfaction on other grounds.

Although the President's proposals for elementary and secondary education were drafted to gain conservative support, as described in detail here last month, Rep. Peter Freylinghuysen (R-N. J.), the ranking Republican member of the Committee, attacked the bill at once and attempted to prevent or obstruct the public hearings. He was echoing the opinion of his party's leader in the House of Representatives, Rep. Charles Halleck (R-Ind.), who said that if the House was "confronted with this sort of a bill, we will have nothing."

On the other hand, a leader of the liberal Democrats, Rep. Edith Green (D-Ore.), was disappointed that the proposed grants to the states for elementary and secondary school salary improvement would not lessen present disparities between states. She was not satisfied with HEW Secretary Celebrezze's rebuttal that living costs vary from state to state. Mrs. Green was also critical of the Administration's refusal to recommend undergraduate scholarships, which have been repeatedly rejected by the House, and the fact that only loans were recommended for the construction of general purpose academic facilities at institutions of higher education. She correctly emphasized that this would preclude aid to public colleges in 45 states whose laws forbid these institutions to borrow.

The opposition of the Roman Catholic church was not diminished by the bill's liberality in the matter of forgiveness of NDEA loans for private-school teachers and construction grants for special purposes (libraries, for example) at private technical institutes, community colleges, and universities and colleges. Msgr. Frederick G. Hochwalt, director of the education department of the National Catholic Welfare Conference, said that President Kennedy's education message "contains something for everybody, everybody except the children whose parents have elected to send them to private schools." Although he considered the provisions of the bill for higher education "encouraging," he stated: "Our position has not changed. We ask equal treatment for all children. We have stated this clearly many times. On this we stand firm."

Msgr. Neil C. D'Amour, associate secretary of the Department of School Superintendents of the National Catholic Education Association, considers the bill a step toward "a monolithic educational system." In last month's *Catholic Educator,* Msgr. D'Amour asserted that positions taken on the federal aid to education issue during the 87th Congress "brought out with startling clarity the intent of certain elements within our society to destroy the traditional pluralism in American education and to replace it with a monolithic educational system." He said the NEA was behind a program to "remove these schools from the market. If we as Americans permit the powerful public-school association known as the National Education Association to seize control of American education, there can only be disaster in our future."

Leadership Lacking.—The most realistic comments at the House Committee's hectic public hearings were made during a brief colloquy on the wisdom displayed by the Administration in sending Congress an omnibus bill. "If we have the leadership of Congress, we'll pass it," Secretary Celebrezze contended. "But if the Administration drags its feet, it will be very difficult to pass," replied Rep. Albert H. Quie (R-Minn.). The education bill is the only major piece of legislation presented by the HEW Department this year, but elsewhere the Administration does indeed seem to be dragging its feet.

Major attention is being given the House Ways and Means Committee, which is considering the Administration's tax proposals, and foreign policy is occupying more of the President's attention than it usually does. After opening his Committee's hearings, Rep. Powell himself flew off to his Puerto Rican vacation home to visit his wife, a high-salaried employe of his Committee who is rarely seen in the House Office Building. As he did, he was bitterly and personally attacked on the Senate floor by Sen. John J. Williams (R-Del.).

Sen. Williams characterized Rep. Powell's recent European trip—with two comely Committee employes—to study the impact of the common market in American labor as a "vacation with his lady friends" and a "tour of the night clubs of Europe" that was financed by the State Department. He criticized the HEW Department for giving certain of Powell's associates a $250,000 grant to determine how effectively a domestic Peace Corps could alleviate juvenile delinquency in Harlem. He asserted that the Internal Revenue Service is not vigorously attempting to collect $40,000 Rep. Powell is said to owe the government.

Sen. Williams said nothing publicly that has not been caustically or ribaldly discussed for months on Capitol Hill. But the impact of his speech, the like of which has not been made in Congress since 1917, will make it difficult for some Congressmen to vote for the President's bill simply because it is formally sponsored by his nominal lieutenant, Rep. Powell. For other members, to be sure, the alleged misdeeds of Rep. Powell, who recently resigned from his Harlem pulpit, merely provide a convenient excuse for voting against aid to education.

The key to survival of the Administration's bill in anything resembling its original form or bulk is probably its provisions for continuance of federal aid for so-called impacted areas. In contrast to his position in previous years (and that of President Eisenhower), this year President Kennedy has avoided attacks on Public Laws 815 and 874 and agreed to a 4-year extension of the costly program. If this sure-fire provision can be retained in the bill, it will carry many a less palatable provision to enactment.

Commissioner-Designate Francis Keppel played only a small role before the unruly House Education Committee. Because the Senate was delayed by a protracted debate on its rules, he was not yet appointed "with the advice and consent of the Senate." Until this formality was accomplished, although on the job every day, he drew no pay. As the Committee wrangled, a freshman, Rep. Sam Gibbons (D-Fla.), stalked out saying, "I'm sick of this whole thing." Keppel was sympathetically asked by Rep. William H. Ayres (R-O.): "Do you really want to be confirmed?" He gamely said he did.

Like a Union.—The NEA, challenged by the relatively small American Federation of Teachers, AFL-CIO, is acting mighty like a union in the nation's seventh largest public-school system—the overseas 1–12 school system for military dependents, which employs more than 7,000 teachers for 170,000 children. About 4,400 of these teachers are members of the Overseas Education Association, a quasi-state affiliate of NEA.

Months ago, NEA asked the Defense Department to recognize it as a spokesman for these teachers under the government-wide rules for recognition of organizations representing substantial numbers of federal employes, which usually are trade unions. Even before recognition was forthcoming, however, it acceded to the request of its affiliate and demonstrated a militancy frequently lacking on the domestic front.

Dr. William G. Carr, NEA's executive secretary, sent an "Urgent Advisory" letter to all state and local NEA affiliates to inform teachers, who are considering accepting positions next year in the overseas dependents' schools, of their "serious" educational and salary problems.

Dr. Carr cited a survey conducted last fall by the Department of Defense, but only recently made public, which criticized these schools severely: "The survey found shortages of supplies and current textbooks, lack of needed specialist personnel, principals bogged down in paper work, an excessive teacher turnover rate, little provision for handicapped or superior children, inadequate and unsafe school facilities in many locations, unsuitable housing for teachers at some posts, and unprofessional salaries for teachers."

He said that the report recommended that administration of the schools be unified, that the educational program of the schools be strengthened substantially, that school facilities be improved, and that teachers be paid professional salaries. The report emphasized, he added, that increased funds are basic to most of the improvements proposed.

The group which made the long-suppressed study of the overseas schools was appointed by Edward L. Katzenbach, Jr., Deputy Assistant Secretary of Defense for education and Manpower Resources. Its members were Alva J. Gibson, chairman, dependents' school committee, North Central Association of Colleges and Secondary Schools, chairman; Lynn M. Bartlett, Michigan superintendent of public instruction; Hazel Davis, associate director, NEA research division; James E. Gribbs, Jr., chief, state school system section, U. S. Office of Education; Edward J. Meade, Jr., program assistant, The Ford Foundation; and Waurine Walker, assistant director of teacher education and certification, Texas Education Agency.

Dr. Carr pointed out that the overseas teachers have not had a salary schedule increase since September 1960, when their starting salaries were fixed at rates equal to those paid teachers in large U.S. school systems the previous year. In establishing the rates, the Defense Department provided for an annual review and adjustment of the schedule, but this directive has not been followed because sufficient funds have not been provided

Overseas teachers are paid from $4,435 to $6,215. According to NEA, the average salary schedule in large urban school districts ranges from $4,941 to $8,480. "If the salary schedule has been fully implemented," Dr. Carr said, "the starting salaries of overseas teachers would be at least 9.6 percent higher in 1962–63 than they are. As a group, overseas teachers have lost more than $4 million in the past three years by the failure of the Department of Defense to pay the salaries rightfully due them. During the period that teachers' salaries have stood still, other civilian federal employes have had two pay raises averaging 13 percent."

The President's Budget asked Congress for an increase of less than 2 percent in overseas school funds. "This request, even if authorized by Congress," Dr. Carr declared, "will be insufficient to bring about the justified pay increases for teachers and the educational improvements long recommended by the Overseas Education Association, the National Education Association, and the recent survey."

If, in the next few weeks, a significant number of teachers decline proferred contracts to teach abroad next year, Congress will probably be convinced that the Defense Department should be furnished the few millions of dollars required to enable it to comply with its commitment to its teachers. NEA's tactics may well be successful, since the annual teacher resignation rate overseas is more than three times the national average. If more funds are won in this manner for the overseas teachers, the next move will be up to the union.

Other Items of Interest.—Among other news items to come out of Washington recently, the following probably should be mentioned:

√ President Kennedy has proclaimed chicken pox a communicable disease for purposes of enforcing federal regulations governing the reporting and handling of communicable disease cases. The President also added hemolytic streptococcal infections to the list of communicable diseases as a substitute for scarlet fever and streptococci sore throat.

√ The number of degree-credit students enrolled in public colleges and universities alone in 1969 will be more than the number enrolled in all the nation's colleges and universities last fall, according to projections of the U.S. Office of Education.

By 1975, the projections envisage a total of 8,616,000 enrolled in all colleges and universities—5,929,000 in public institutions and 2,687,000 in private institutions. The 1962 enrolment statistics (fall) put 2,573,000 students in public institutions, 1,601,000 in private institutions. This means that whereas enrolment in public institutions will double at some point well before 1975, enrolment in private institutions will have increased by only 68 percent by 1975.

√ This summer and during the 1963–64 school year, 4,500 foreign language teachers will attend 83 special training institutes under the NDEA program. ●

Programed Instruction Use

PROGRAMED instructional materials are being used by approximately 4,000 schools in the country this year, according to a report of the Center for Programed Instruction, prepared for the U.S. Office of Education. This estimate is based on a 20 percent return of questionnaires sent to 15,000 school superintendents.

Twelve percent of the schools responding are using mechanical devices with the programs, according to the survey.

A National Symposium on Research in Programed Learning and related information activities will be held in the NEA Headquarters, Washington, D.C., March 24–26. Topics for discussion at the Symposium, which is being financed by a $50,000 grant from The Carnegie Corporation, will include programing variables, machines and complex teaching systems, use of programed materials in the various academic areas, and standards for the assessment of programed materials.

A follow-up national conference on the selection and use of programed instruction will be held in Detroit, June 26–28, preceding the NEA convention.

Improve Humanities Curriculum

A GRANT of $1 million to Educational Services, Inc., of Watertown, Mass., has been announced by the Ford Foundation to see if it can do for the humanities and social sciences what was done recently for the high-school physics curriculum.

Educational Services, Inc., which conducts research and development projects in education generally, is an organization that grew out of the Physical Science Study Committee (PSSC) of the Massachusetts Institute of Technology. PSSC devised an up-to-date physics course now used by one out of every five high-school students.

James R. Killian, Jr., chairman of the Massachusetts Institute of Technology, is chairman of the board of Education Services, Inc. Carrol V. Newsom, former president of New York University, now vice-president of Prentice-Hall, Inc. is president.

Interest in Economics High

THE problem of economics teaching in the high school is currently receiving more attention than it has for many years.

A new report published by the Joint Council on Economic Education, *A Teachers Guide to Economics in the Business Education Curriculum,* discusses the relation of business teachers and economics teaching. It points out that business teachers should be willing to do their share of the job of teaching economics, particularly because they are often better prepared than other types of teachers. "Teachers will find," the report says, "that business courses already being taught may well serve as springboards into the expanded area of thinking about economic matters."

The report emphasizes that "this will not eliminate the need for courses in economics, nor will it free teachers of other subjects from their responsibilities, but it will do much to improve the situation."

In another area, the current TV course on "The American Economy" being carried weekdays over the Columbia Broadcasting System television network, is said to be "truly the largest class of all time" by Learning Resources Institute, one of the sponsors of the program.

It is estimated that the course is being viewed by more than 1,000,000 persons, and approximately 5,000 viewers are taking the course for college credit. At least 359 colleges and universities are offering credit for the course and approximately 150 separate school systems in the country have selected the course for either in-service credit for teachers or as part of the curriculum for special students.

The principal objective of the 150-lesson course is to inform high-school teachers about economics. Sponsors of the program, in addition to the Learning Resource Institute, are the American Economic Association, the Joint Council on Economic Education, and the national Task Force on Economic Education.

Single Shift in Chicago

CHICAGO'S public schools have returned to a single-shift schedule for the first time in more than a century.

The opening in February of seven schools and additions enabled the city's 397,000 public elementary pupils to attend full-time classes during regular school hours for the first time since an unrecorded date before 1862, according to Superintendent Benjamin C. Willis.

Superintendent Willis said that classrooms should contain a maximum average of 34 pupils by next September, compared to 39 in 1953. Aiding the school board in its goal of 34 pupils per classroom will be the scheduled opening of 831 new classrooms by Jan. 1, 1964. Another 192 classrooms are in the planning stage.

In the last 11 years, enrolment in Chicago's public schools, including colleges, has increased by more than 171,000. More than 56,000 additional youngsters are expected in grade and high schools in the next four years. Chicago's public-school system is rated the second largest nationally, with New York's system the largest.

Grant for Music Education

THE Music Educators National Conference has received a $1,380,000 grant from the Ford Foundation for a six-year program aimed at increasing the emphasis on the creative aspects of music in the schools.

The program will have two main parts. The first will consist of the selection and assignment of young composers to write music for performance by the orchestras, bands, choruses, and other ensembles of the public secondary-school systems to which they are sent. This part of the program continues the Young Composers Project initiated in 1958 by the Ford Foundation. To date 39 composers have spent one or two years in 44 different school systems throughout the country.

The second part of the program will include a variety of activities seminars and workshops on contemporary music in the schools, pilot projects for the identification of creative talents among students in elementary and secondary schools, expansion of the repertory of contemporary music of high quality, and a continuing review and evaluation of school music programs in relation to the project.

B. Bernard Fitzgerald, head of the department of music at the University of Kentucky, will be director of the project. The policy and operational functions of the project will be directed by a joint committee appointed by the Foundation and the MENC. Norman Dello Joio will be chairman of the joint committee.

Hypnotism in College

PROPERLY used, hypnotism can improve study habits, aid test-taking behavior, and strengthen academic motivation in nine out of 10 college students, according to Stanley Krippner, reading specialist at Kent State University, Ohio.

On the basis of findings over the past five years, Dr. Krippner maintains that only a "light hypnotic trance need be induced for improvement to take place in these areas, and present evidence indicates that about 90 percent of the college population is able to enter a trance of this depth."

He warns that while the technique is promising as an educational tool it is not a panacea. "Furthermore," he says, "it must be used in collaboration with other methods and techniques. A sound knowledge of educational psychology as well as a solid background in hypnosis is necessary. The hypnotist must understand the phychological and physiological concomitants of reading improvements and study habits."

Dr. Krippner's report appears in the January issue of the *American Journal of Clinical Hypnosis*.

New Twist in Wisconsin

IN Wisconsin, a new twist in teacher-superintendent-board relations has taken place. The Wisconsin Federation of Teachers has begun a legal attempt to bar the Wisconsin Education Association as a bargaining agent for teachers under the state's new public employe law.

In an unfair labor practice complaint to the Wisconsin employment relations board, the teachers union charged that the WEA was dominated by employers and was discouraging membership in the teachers union. The WEA has, in the past, declared itself a professional organization.

Also named in the union complaint are the West Milwaukee—West Allis school district and the local teachers association. The union said it had requested the school board to recognize it as the exclusive bargaining agent for the system's teachers. The board, however, granted exclusive recognition to the local teachers association. This conduct, the union charges, was calculated "to interfere with, restrain, and coerce" teachers in their right to be represented by a labor organization of their own choice.

The new Wisconsin law states that a labor organization recognized as exclusive bargaining agent may negotiate with municipal employers—including school boards.

The present case, according to an article on the situation in *School Boards,* may determine whether the WEA will become more like a union in its composition and tactics, or whether it will prefer to retain its present form and forego the right to use the new labor law.

Unesco's Antidiscrimination

In January, Norway became the twelfth country to ratify Unesco's Convention against discrimination in education. This Convention, which came into force on May 22, 1962, is designed to promote equality and justice by combatting discrimination in education.

Adopted in 1960 by the Unesco General Conference, it has now been ratified by 11 other countries in the following chronological order: France, Israel, Central African Republic, the United Kingdom, the United Arab Republic, Liberia, USSR, Cuba, Bulgaria, Bielorussia, and Ukraine.

DATES OF THE MONTH:

Mar. 3-6, Association for Higher Education, Chicago, Ill.

Mar. 10-14, Association for Supervision and Curriculum Development, St. Louis, Mo.

Mar. 10-15, National Art Education Association, Kansas City, Mo.

Mar. 16-20, Music Educators National Conference, Chicago, Ill.

Mar. 24-26, National Symposium on Research in Programed Learning, Washington, D.C.

Mar. 29-April 2, National Science Teachers Association, Philadelphia, Pa.

Mar. 30-April 3, Department of Elementary School Principals, NEA, Oklahoma City, Okla.

DATES OF THE COMING MONTHS:

April 3-6, National Council of Teachers of Mathematics, Pittsburgh, Pa.

April 9-13, American Industrial Arts Association, Indianapolis, Ind.

April 16-19, National Catholic Education Association, St. Louis, Mo.

April 16-20, Council for Exceptional Children, Philadelphia, Pa.

April 21-26, Association for Childhood Education International, Miami Beach, Fla.

April 21-27, National Library Week.

April 22-26, Department of Audiovisual Instruction, NEA, Denver, Colo.

April 24-27, National Association for Gifted Children, Terre Haute, Ind.

April 28-30, National School Boards Association, Denver, Colo.

May 19-22, National Congress of Parents and Teachers, Miami Beach, Fla.

June 30-July 5, National Education Association, Detroit, Mich.

Teacher Liability in School-Shop Accidents. Denis J. Kigin. Ann Arbor, Mich.: Prakken Publications, Inc., 1963. Pp. xii + 128. $4.50, cloth bound; $3.00, paper.

This is a thorough, well-documented discussion of the liability problem that has plagued teachers and administrators for many years. Although the book is concerned principally with liability for accidents that occur in the shop area of the school, the principles enumerated regarding liability and legal defense are applicable to all areas of the school.

The author, who is an associate professor of industrial education at Arizona State University, probes the various elements of liability and the nature and extent of shop-teacher liability. Noting the increase in the number of cases in which teachers and school districts have been sued for damages because of pupil injuries, accompanied by a rise also in the average sum awarded in courts, Professor Kigin then analyzes the various safeguards now available to protect the teacher from litigation and damage claims, both legislation and insurance. Safety as an instrument in preventing liability is also given a complete discussion.

In the final section of the book, Professor Kigin suggests a projected solution to the teacher-liability problem. His "pupil compensation" plan, similar to our workmen's compensation laws, should prove provocative and interesting to all teachers, administrators, and school board members.

Written in layman's language, the book is complete with case studies and an up-to-date coverage of state legislation and court decisions regarding liability. A chart gives state regulations relating to teacher liability for each of the 50 states.

This book should prove valuable to all teachers and administrators, no matter what their field. It also should prove helpful to teacher-educators, particularly industrial teacher-educators, for a unit on liability.

The Optimistic Tradition and American Youth. Eli Ginzberg, James K. Anderson, and John L. Herma. New York: Columbia University Press, 1962. Pp. x + 160. $3.75.

This book is a survey of findings which have grown out of more than two decades of basic research by the Conservation of Human Resources Project at Columbia University. The survey is presented against a background of traditional American beliefs in progress, particularly in progress of improvement of youth.

The authors picture the results of theories and practices in psychology, education, and the effects of postwar prosperity in America. Conflicts between long established traditional beliefs and reality resulting from rapid social change are noted and the roles of schools, parents, governmental institutions, and youths are examined.

A final chapter, "Directions for Policy," offers some recommendations—not specific operating details of program operation, but recommendations pointing to areas in our society in which youth is not served in the best interests of the individual or our society. The variances in quality of educational opportunity, changing needs and requirements in the work world, and widespread discrimination against minorities which prohibits normal growth and development are a few of the areas receiving comment and recommendations for correction.

The Extremists. Mark Sherwin. New York: St. Martin's Press, 1963. Pp. viii + 242. $5.00.

This book surveys the groups and individuals currently publicized as proponents of the rightwing movement in this country. It includes brief biographical sketches of Senator Barry Goldwater and William Buckley, editor of the *National Review*.

The content focuses primarily on the more extreme fanatical organizations and personalities active today, including Robert Welch and the John Birch Society, George Stuart Benson, president of Harding College, Reverend Billy James Hargis and the Oklahoma Christian Crusade, evangelist Dr. Fred Schwarz, and ex-Major General Edwin Walker.

The Education of the Secondary School Teacher. Edited by Ernest Stabler. Middletown, Conn.: Wesleyan University Press, 1962. Pp. 239. $5.00.

This book presents specific recommendations for improving the training of high-school teachers. The recommendations are from seven professional educators. The editor, chairman of the Master of Arts Teaching Program at Wesleyan University, is author of introductory chapters outlining the history of the professional education movement, current teacher-training practice in the United States, and comparative practice in England and France.

Specialists produced individually written chapters in the disciplines of philosophy and psychology and in specific subject areas of literature, history, languages, science, and mathematics. Other chapters deal with the requirements posed by major subjects of high-school study.

Automation and the Challenge to Education. Edited by Luther H. Evans and George E. Arnstein. Washington, D.C.: National Education Association, 1962. Pp. x + 200. $4.00.

This book deals with the impact of automation, the advance of technology, and the educational responses needed as society adjusts to the inevitable changes. The content includes the working papers and discussions of a symposium held in Washington in 1962. Leaders from business, labor, and education participated. in the symposium.

The editors, Luther H. Evans and George E. Arnstein, NEA staff members who directed the project, in an introductory description of automation and its effect, offer this hypothesis: Possible cuts in the work week should be retained for educational purposes—liberal, vocational, or remedial as each worker might decide.

This hypothesis met with a mixed reception at the symposium—touching off a far reaching discussion of the educational implications of automation. The papers and the reports of the discussions on the papers identify many issues being encountered today—and more that will be encountered tomorrow—as a result of technological advance and increased application of automation. The role of the school is discussed—a discussion which provides an exploration into many aspects of life in a society feeling the "growing pains" of rapid change.

Toward Better Reading. George D. Spache. Champaign, Ill.: Garrard Publishing Co., 1963. Pp. viii + 470. $5.75.

This source book summarizes most aspects of reading research. It presents pro and con discussion of major problems in reading instruction, contains extensive up-to-date bibliographies, annotated lists of audiovisual aids, materials for parent education, and analysis of selected tests.

The book is the result of an effort to give the reader comprehensive coverage of all resources for reading instruction. Conflicting opinions and evidence on phonics, readiness, rate training, diagnosis, and remedial procedures are examined and evaluated.

George D. Spache, head of the reading laboratory and clinic at the University of Florida, is the author of several books and many articles on reading instruction.

OTHER MATERIALS RECEIVED: ELEMENTARY

Ships of the Great Days; Canada's Navy in World War II. Joseph Schull. New York: St. Martin's Press, Inc., 1962. Pp. 156. $2.95.

Computers at Your Service. Bernice Kohn. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. 72. $2.95.

Things You've Wondered About. Jack Myers, *et al*. Columbus, Ohio: Highlights for Children, 1962. Pp. 33. $.75. A Highlights Handbook which explains simple scientific facts.

The Wonderful New Book of Ballet. Edwina Hazard Glen. Chicago: Rand McNally & Company, 1962. Pp. 96. $2.95.

The Animal Song Book. Ed Fisher. New York: St. Martin's Press, 1963. Pp. 48. $3.25.

America's Mark Twain. May McNeer and Lynd Ward. Boston: Houghton Mifflin Company, 1962. Pp. 159. $3.75. One of the America's Series.

Lakes, Hills, and Prairies; The Middle-western States. Frances E. Wood. Chicago: Childrens Press, 1962. Pp. 93. $3.50. One of the Enchantment of America series.

In the Deep Blue Sea. Elizabeth Morgan. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. 72. $2.95.

The Golden Stallion Rutherford Montgomery. New York: Grosset & Dunlap, Inc., 1962. Pp. 61. $1.00. An abridged edition.

America Sails the Seas. John O'Hara Cosgrave. Boston: Houghton Mifflin Company, 1962. Pp. 95. $5.00. From birch bark canoe to the atomic submarine.

The Illustrated Book about Europe. Felix Sutton. New York: Grosset & Dunlap, Inc., 1962. Pp. 157. $4.05.

SECONDARY

A Study of the USSR and Communism: An Historical Approach. Alfred J. Rieber and Robert C. Nelson. Chicago: Scott, Foresman and Company, 1962. Pp. 272. $1.35, paperback. Includes background information on Russia, the origin and development of Communist ideology, contemporary communism within the USSR, and communism in its international setting.

What You Should Know about Communism and Why. Editors of Scholastic Magazines. New York: Scholastic Book Services, 1962. Two editions: junior-high school, 128 pages, $.50, paperback; and senior-high school, 192 pages, $.65, paperback. Hardcover editions published by McGraw-Hill Book Company, Inc., New York. $2.50 and $2.95, respectively.

The Growing Years: Adolescence. Edited by Ann E. Jewett and Clyde Knapp. Washington, D.C.: American Association for Health, Physical Education, and Recreation, 1962. Pp. 320. $5.00. The 1962 Yearbook of the American Association for Health, Physical Education, and Recreation.

William Harvey; Trailblazer of Scientific Medicine. Rebecca B. Marcus. **Johannes Kepler and Planetary Motion.** David C. Knight. New York: Franklin Watts, Inc., 1962. Pp. x + 127 and 186. $2.21 each. Two titles in The Immortals of Science series.

A Review of English Fundamentals. Emma Julia Phillips. New York: Holt, Rinehart and Winston, Inc., 1962. Pp. xxi + 260. $2.00, paperback.

Seeing through Mathematics, Book I. Henry Van Engen, *et al*. Chicago: Scott, Foresman and Company, 1962. Pp. 508. $3.60. New mathematics. Book seven in The Basic Mathematics Program.

The Soviet Union. New York: Scholastic Book Services, 1962. Pp. 160. $.65, paperback. A Scholastic World Affairs Multi-Text.

COLLEGE

Handbook for Trustees. (Revised Edition.) Myron F. Wicke. Nashville, Tenn.: Board of Education, The Methodist Church, Division of Higher Education, 1962. Pp. 101. $1.25. One of the Studies in Christian Higher Education series.

Chance and Choice in Higher Education. M. M. Chambers. Danville, Ill.:

The Interstate Printers & Publishers, Inc., 1962. Pp. 119. $2.50.

A Manual on Research Writing and A Manual of Form for Theses and Term Reports. (Second Edition.) Kathleen Dugdale. Bloomington, Ind.: Indiana University Bookstore, 1962. Pp. 50 and 58. $2.00 each.

State Formulas for the Support of Public Two-Year Colleges. D. G. Morrison and S. V. Martorana. U.S. Office of Education Bulletin No. 14, 1962 (OE-57004). Pp. vi + 70. Available from U.S. Government Printing Office, Washington 25, D.C. $.30.

GENERAL

Readings in Human Learning. Edited by Lester D. and Alice Crow. New York: David McKay Company, Inc., 1962. Pp. x + 493. $3.95.

The Leader and Individual Motivation. Paul C. Buchanan. **The Leader and The Process of Change.** Thomas R. Bennett. **The Leader and Group Effectiveness.** Gordon L. Lippitt and Edith Seashore. **The Leader and Creativity.** Irving R. Weschler. New York: Association Press, 1962. Pp. 63 each. $2.00. Discounts in quantity. Four leader-training workbooks.

Ivan the Terrible. Jules Koslow. New York: Hill and Wang, 1962. Pp. ix + 271. $5.00.

Echo in My Soul. Septima Poinsette Clark with LeGette Blythe. New York: E. P. Dutton & Co., Inc., 1962. Pp. 243. $4.50 The story of a Negro teacher's work to help her people in the South.

Letters of Emily Dickinson. Edited by Mabel Loomis Todd. **Marcel Proust: A Biography.** Richard H. Barker. New York: Grossett & Dunlap, Inc., 1962. Pp. xxiv + 389 and x + 373. $1.95 and $2.25, respectively. Two titles in the Universal Library paperback series.

Sources for Free and Inexpensive Educational Materials. (Second Edition.) Edited by Esther Dever. 1962. Pp. 381. Available from Esther Dever, P.O. Box 186, Grafton, W. Va. $3.00.

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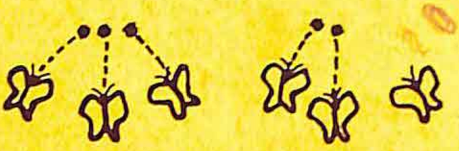

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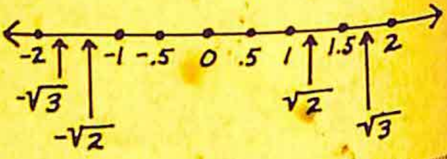

from

simple equations

$3+4=\square$
$7-4=\square$

through

compound conditions in three variables

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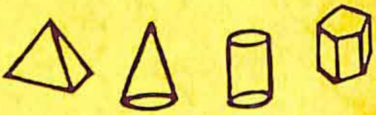

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Do We Want a Meritocracy?

American Education: Icons and Images

HENRY J. PERKINSON

In The Educational Forum

Henry J. Perkinson is Assistant Professor of History of Education, New York University, New York. Reported from The Educational Forum, *XXVII (January 1963), 233–45.*

LIKE the reformed delinquents that they are, the people who work in American schools and colleges have made a new profession of faith. The *Credo* now consists of dedication to essentials, or a return to intellect, or, to use the most persuasive slogan, the pursuit of excellence.

I'll not question the slogan; I will question the program for implementing the slogan, a program which has already brought about a significant change of focus in American education.

Not too many years ago everybody seemed contented with American education. The teachers were happily meeting the needs of children and providing them with real-life experiences. Parents were delighted that children were now learning by doing, learning through experience. And the kids seemed to be the happiest of all, since they were being treated as human beings. By and large, Americans seemed to have bought Progressive Education—or at least they had bought its slogans.

But this, it turned out, was a delusion. The American personality as revealed in its attitude toward education in this country is manic-depressive.

In the 1930's and 1940's, most Americans agreed that American education was good, perhaps the best. This was the manic stage. But in the 1950's, the depressive stage began. Criticism, despair, frustration, and anger were displayed in a rash of articles and a spate of books attacking education.

The story was the same in all the criticisms. Academic studies were being sacrificed to fads and frills. Kids weren't learning, they were playing. True education was being prostituted to an invidious philosophy of learning by Dewey. American education, it was revealed, had been subverted by John Dewey and his followers, by the teachers of teachers, or as they now came to be called derisively, "Educators." The "Educators" were ruining education.

Actually, it had not been the teachers, nor had it been their teachers, the "Educators," who had sneaked in progressive education on an unsuspecting public.

At its birth at the turn of the century, progressive education had been heralded and urged on the teachers by such diverse groups as the farmers, the N.A.M., the unions, and the city reformers.

The farmers, losing their sons to the city, urged the rural school to give an education suited to rural life—a real-life education that would keep the boys down on the farm. The city reformers, such as Jacob Riis and Jane Addams, wanted the school to enlarge and widen its scope to care for the needs of the thousands of immigrant slum-dwellers who were a living disproof of the American dream.

The N.A.M., frightened by the display of European progress in mass-production techniques, bemoaned the absence of skilled workers in America. They began demanding that increased practical and vocational courses be taught in American schools. The unions, fearful at first of creating a permanent working class by the creation of vocational schools, were soon won over by a number of factors, including: fear of the skilled European immigrant, realization that increased know-how could be used as a lever for increased wages, and by the plan to place vocational-education programs in the same school with the academic or college-preparatory programs.

With these many diverse forces focusing on the schools, all demanding that it widen its curriculum, broaden its scope, and thus restore the American dream, it is understandable that the American school underwent a radical transformation.

My thesis, stated baldly, is that the rise of progressive education was integrally a part of the rise of progressivism in all aspects of American life—in politics, in social theories and practices, in economics. This thesis has been well-documented in a history of the progressive - education movement by Lawrence Cremin of Teachers College, Columbia University. It was in this soil that the phenomenon we call progressive education took root and flowered.

DIVERSITY DISAPPEARS

But by the 1950's, American society had altered radically. The most significant and far-reaching change was the disappearance of diversity, or pluralism, within the society.

The disappearance of American diversity and pluralism created a new threat to the society's well-being. The dangers of internal strife between the haves and have-nots was superseded by the threat of an emerging mass society; a society in which men were losing their individuality, which had been both rooted and protected by American pluralism.

Some will recall that in the early 1950's the union card for student intellectuals was a copy of Reisman's *The Lonely Crowd*. In one short section, Reisman explained how progressive education and progressive educators were furthering conformity by urging children to cooperate with one another and by forcing them to fit in with the group. Socialization and adjustment were now the aims of progressive education.

Progressive education had, in fact, deteriorated to the inane slogan of life adjustment—fostered by many well-meaning but somewhat addle-headed teachers who failed to realize that American society had changed. In the days of pluralism, the program to make the school reflect the existing society had been a liberating force. But now, everyone was in the mainstream of American life, and it was becoming brackish. When educators, therefore, claimed that the school should reflect the society, this meant that the schools would reflect all that was mediocre intellectually, all that was vulgar culturally, and all that was bland morally.

Perceiving that progressive education was actually encouraging the increasing conformity, many intellectuals took to their typewriters and proceeded to attack it.

In the 1950's then, the mood had changed—America was entering its depressive stage in regard to education. In September of 1957, Americans suffered a traumatic shock that brought this depression to full force. By some strange process of tortured reasoning, the launching of the Soviet Sputnik was converted into an educational defeat.

OUR DEFEAT

The steps in reasoning might be said to have been something like this: Sputnik was a technological defeat for the United States. This defeat usurped United States leadership. There must then, somewhere, somehow, have been a waste of Americans who were, or could have been, leaders. This wastage must be due to the schools. Ergo, the technological defeat was at root an educational defeat.

One of the first groups to affirm that this was an educational defeat was the United States Congress. In 1958 Congress passed the National Defense Education Act. Education was now conceived as part of National Defense, and those to be educated inevitably came to be looked on as the nation's most valuable natural resources.

Soon new medicine men, the Foundations, appeared to cure the sickness in American education. Sparked by the fortunes and traditions of positive thinking bequeathed by those who had onetime been called robber barons, the people who ran the foundations turned their financial and intellectual resources to the task of resuscitating American education—injecting it with cash and positive thinking.

Studies were made, books written, and reports issued planning the framework for the next, new phase in American education. The slogan had now become "the pursuit of excellence."

To implement the new slogan, the jobs of the people who work in the schools seemed relatively simple. First, select the talented (sometime called gifted, or the excellent ones); second, train these selected ones.

American education soon became involved in seminars, conferences, workshops, conventions, all devoted to the dual task of selecting and training the excellent ones in our society. Special classes for the gifted spread throughout all American schools and through all levels of education.

Unfortunately, this program of selection and training is hampered somewhat by the absence of adequate answers to certain key questions: Who are the talented? How do we measure talent? How do we train the talented?

We not only do not have adequate answers at present to these questions, but there is, I think, an additional question to be raised, a question of utmost importance. That is, "What happens to those selected as talented after they have been specially trained?" The assumption that most seem to make is that these people will become leaders in American society. In fact, it is sometimes assumed that the gifted or talented are by definition, "those who possess potential creative leadership abilities."

A MERITOCRACY

It seems that the expected result of the emerging new focus is that such education will train leaders, thus creating an ideal society—in which the most gifted are on top. This ideal society has been labeled by some a "meritocracy," meaning rule by those with merit, or talent.

The concept of a meritocracy is not new. Actually, what is probably the first recorded description of an ideal society was a description of a meritocracy. I refer to Plato's *Republic.*

Plato's educational system focused on the selection and training of the guardians or leaders.

With typical aptness, Alfred North Whitehead once noted that all of western philosophy was nothing more than one long footnote to the philosophy of Plato. This claim could also be made about western political theory and western educational theory. The one notable exception to this spell of Plato is the United States.

When the American Republic was founded, Plato's Republic was rejected; the basic political question, "Who should rule?" was irrelevant in the context of creating afresh a national government where none had existed before. Plato's educational question, "Who should be educated?" was also rejected. If citizenship was to be extended to all, if any man could become president, then all must be educated. Only in this way could the dangers of tyranny be prevented.

Today the new slogan is the pursuit of excellence. I do not think it is really a new theme for American education. I do think that the pursuit is taking place in a new, larger context—that of the world.

The pursuit of excellence today is the quest to make the United States the most powerful, wealthiest nation the world has ever known. In this pursuit young men and women are no longer looked on as "man," but as manpower. How many times have you recently heard children referred to as our greatest natural resource? This frame of reference outdoes psychologists who equate human beings with rats and pigeons, which, at least, are living organisms. But natural resources? Like oil? Iron? Coal?

I do not underestimate the threat of the Soviet Union, nor of Communist China. As Admiral Rickover has said, we are faced with a formidable competitor. But I think that we should realize that one result of our entry into this competition has been the denigration of man to the level of manpower. With our new programs to implement the pursuit of excellence, we are returning to the spell of Plato, to the spectre of a meritocracy.

Yet, if the schools were to forego the program of selecting and training the talented for leadership, would not our society be in great danger of becoming a mass society? A society dominated by the masses? Is this the kind of society we want?

Perhaps there is a third way, a way that is not clearly mapped out, but a way that would perhaps prevent either kind of tyranny from emerging, and which would restore John Dewey's vision of a participant democracy of a "larger society, that is worthy, lovely, and harmonious."

This third way would be predicated on the necessity of a pluralistic society. Now that the built-in pluralism of America is disappearing, what I am advocating is that through the schools a pluralistic society might be created, created by searching out and nurturing a diversity of interests, skills, attitudes.

The schools would not ignore talented people, but rather would seek to discover them. More, they would seek to discover new kinds of talents, talents not yet labeled and classified—talents in the expressive as well as in the cognitive domain; gifts in style of life as well as in particular specialisms.

I am not at all sure that it is possible for the schools to plan and create a pluralistic society. But at least it is a pragmatic, optimistic, alternative image to the image of education for life adjustment, or education for leadership. It is an image not of a planned society, but of a planning society. ●

Why Is the Scientific Image Downgraded?

Educational Research: Investigation or Vindication

GERALDINE M. JONCICH

In Saturday Review

THERE is no time in the last 60 years where there appears to be *less* confidence in the scientific status of education than today.

The men and women promoting research in education today are the inheritors of a social and professional movement beginning late in the nineteenth century. That was education's "scientific movement," an attempt to remove school decision-making and school practice from the realms of opinion, tradition, and political pressure and to place education, instead, on the firm basis of empirically and, preferably, experimentally derived knowledge.

If there is a diminution of confidence in educational "science," what might the explanation be? Some have argued that early enthusiasts were overoptimistic and naive in their expectations of a science of education. Others contend that the researchers have pursued methods, defined research problems, and conducted studies inappropriate to education—to education as a human, social enterprise, that is—and that they have, therefore, failed to produce relevant and usable information to guide practice.

I believe each of these explanations to be inadequate to explain the downgrading of the scientific image.

The essence of this analysis is that another explanation can be postulated, one emerging from historical analysis of the total development of education in this century. This explanation points out that objections to educational research were ultimately (and may still be) of a philosophical and not of a technical or methodological order. Furthermore, I contend that research in education has been despised as much for its successes as for its failures, for its results as much as for its lack of results.

There have been two kinds of criticism of educational research. One, "methodological" criticism, was concerned primarily with the scientific "correctness" of the methods being used, with the accuracy and precision of the experimentation, and measurement of results. It

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generally came from men within the scientific enterprise.

As early as 1914, an investigator, Guy Whipple, was contending that the need was not for constructing additional educational and psychological tests but for more complete data and rigorous analysis on those already available.

More of this type of criticism would be B. R. Buckingham's statements about the piecemeal and exploratory-but-never-pursued quality of educational experimentation. He also objected to that overcautious frame of mind that produces tentative research which concludes with pious references to the need for additional study and which absolves the researcher of either past or future responsibility.

Generally, those who have worked with synthesizing scattered research data, with its application to school practice, and with overcoming problems of communicating findings, all share a belief in the value and possibilities of an educational research of a type much like that originally expected by the earliest leaders of the scientific movement.

However, another order of criticism was voiced, one that may have confused the issue and blurred the image of "educational science." It can be identified with the theorists and practitioners of the progressive movement in education.

In 1900, even in 1910, the scientific movement and the reform movement, which later was termed progressive education, were all of a piece. Research was merely one approach avenue to make education more effective and efficient, to make it truly a servant of the social-reform impulse. The course of research and the advance of progressive pedagogical theory in this century have been intertwined.

However, with every year that passed, a steadily more serious disaffection grew between the so-called scientists and other breeds of educational reformers. To illustrate the influence of philosophy on "science," thus to illuminate modern debates about educational research, the following are examples of progressive criticism in the areas of teaching, curriculum, and learning—important areas that were researched.

John B. Carroll of Harvard University has been investigating the deficiencies of educational research. He has referred to a certain habit of thinking and proceeding that is characterized by an unwillingness of researchers to use *direct* measures of pupil progress and behavioral statements to demonstrate certain things about education, especially about teaching.

This point was carefully noted because there has long been a controversy about whether teaching effectiveness may be evaluated by measuring student learning progress. The profession's answer has been a firm no; some of the arguments against merit pay demonstate this attitude.

Apparently this was not always so. There is some historical evidence that the earliest achievement tests were proposed as tests of teachers; NEA meetings early in this century indicate as much. But along with extension into the schools of the flexible, nonsystematized, and individualized teaching methods advocated by progressive educators, and with the greater emphasis on student individuality, the impact of outside factors on school performance, etc., came consolidated opposition to testing the teacher through the student.

Professor Carroll thinks education today suffers from a hesitancy to use such direct measures. He does not assign responsibility for this reluctance. I make the connection with progressive teaching theory; I hypothesize this to be a consequence of that pedagogical system's influence on the professional mind.

A SECOND ILLUSTRATION

The history of science provides a second illustration of the contact of philosophy and science. Many examples show that a new science typically begins by studying rather remote and unimaginative problems. Physicists were initially content to discover "laws" describing simple and uninteresting phenomenons. Educational science began with investigations of the less complex, more accessible, and isolable phenomenons of human behavior. Before very long came the progressive critique.

One voice belonged to Junius L. Meriam, director of the laboratory school of the University of Missouri, a Midwestern showplace among early progressive experimental schools. About the time of World War I, Meriam attacked the word-flash studies of reading then being conducted. He maintained that reading was a whole experience, a complex, social, concept-making process—not calling out words as they came from a rapid-exposure device.

I believe that Meriam did recognize that reading—even broadly defined—absolutely rests on a basis of recognizing words. To my knowledge, no responsible investigator claimed that word recognition was the be-all and end-all of reading. Nevertheless, progressives bore down on the researches, in criticisms of the *kinds* of subject matter and learnings being investigated.

The reason for the attacks seems clear from their own statements: Scientific investigation was refocusing attention on a kind of curriculum which progressive theorists were trying to replace or at least relegate to a position of lesser importance.

To the extent that some researchers were convinced, by these critics, that their approach was not productive, that they were not moving toward a "real" study of what education "really" is, then to that extent perhaps education research was stunted. This seems a likely consequence of the progressive assault—if progress of a science depends on careful building of theories from the more readily identifiable and manageable elements.

The so-called "transfer of learning" studies also suggest ways in which the activities of a potential scientific field may come up against assumptions of a philosophical position and be altered by that contact.

A number of investigations were made of the conditions of maximal and minimal learning gains accrued from specific learnings of one kind, or learnings in one situation, assisting a person in another situation or in using another kind of subject matter. Initially the results were favorable to the cause of educational reformers. The early studies, showing little transfer, served as a wedge, allowing socially useful subjects to enter the curriculum, supporting the so-called problems approach in teaching methodology, even being used to justify an expanded program of teacher education.

But as the studies piled up, many of the results were also interpreted to stress the necessity of a high degree of specificity, systematic teaching, and practice (drill) in order to "cinch" learning. Not liking this kind of learning theory, some progressives, at least the more extreme, were as prone to assume automatic learnings with their "social" subjects and "emerging" methods as the old classicists had been with their "disciplinary" studies and recitation system.

In disapproving of the transfer studies, the progressives did not disavow science. Rather they stressed the very language of science; they spoke of faulty methodology, without the motivations and sometimes the competence of the scientists-critics. They complained of the rote, remote, and isolated character of many studies, despite the fact that John Dewey stated that scientific investigation must necessarily abstract and isolate.

With many investigations failing to buoy progressive pedagogical theory, various educators began to shop selectively among studies and psychological theories. Freudian theory in the 1920's and Gestalt theory in the 1930's provided alternatives to Thorndikian science. Today they have created something called "Action Research." This serves the cause of giving education scientific support, of lending an aura of experimentalism, and of removing the odium of being stand-pat and rigid in philosophy, and—at the same time—presenting very little danger to certain acceptable, professional beliefs about how education ought to be conducted.

A REQUEST

My conclusion emerges as a request that researchers in education re-examine the original relationship of their enterprise to certain theories of education and to certain bodies of professional opinion, and divest themselves of any handmaiden role.

Howls, protests, and charges will come in the process of "disinterested" scientific pursuit. Some people have never forgiven the study which first seemed to show the lack of a positive relationship between measured learnings and a small class size. And there are the infamous studies which show some irrelevance in the relationships between various teacher-education programs and how one teaches. But it is service to education that justifies educational research and not support of any group as such. Otherwise, education might as well remain an under-researched field.

Just to do more of the same, with the presuppositions, loyalties, and identifications would merely compound the confusion, deepen the morass of undigested data, and intensify the sense of futility and loss of momentum which comes from looking at the scientific movement since its first promising days.

The question, then, is whether later and present researchers in education have been overly influenced by the progressive doubters, whether scientists have failed to restudy past achievements of educational science afresh, using other standards and from less committed philosophical positions.

A related question is: Have the progressives too much defined the very problems which will be researched into the indefinite future? Will progressive theories about the teacher's role, elementary-school organization, class size, pupil motivational systems, etc., continue to determine the very nature of experiments to be conducted? Will they bind research designs and govern—perhaps unconsciously—the researcher's perceptions of the results?

If so, we would see an interesting reversal: a pedagogical theory, now suffering from significant philosophical and political repudiation, once again turning to science for support.

I hope, instead, that educational research will devote itself to finding out rather than proving, to searching rather than to supporting, to investigating rather than to vindicating. ●

● If an educational publishing house had reprinted *What Makes Sammy Run,* it would have undoubtedly been called "Motivational Research of Sammy's Motion Potential."—Fred M. Hechinger in *New York Times Magazine.*

● Basic research is what I am doing when I don't know what I am doing.—*Wernher von Braun.*

● A man is sunk unless he retains the amateur in himself. You can get too professional—too intent on making money. You have got to have some of the enthusiasm, some of the eagerness of the amateur.—*Ronald Colman.*

The Elite and the Masses

PATRICIA CAYO SEXTON

In Education Synopsis

BRILLIANT defenders to the contrary, the postwar records seem to show that the "elite" and not the "masses" have had the upper hand in American schools during the last several decades.

The elite's ascendancy is studded with demands for the early separation (segregation) of children according to scientifically-measurable "ability" and "native" intelligence: bright ones in the top pile, average in another, and the dull sifted to the bottom layer —rather like Plato's categories: scholar-kings, military, drones, etc.

The process is not a product of malicious or selfish snobbery; rather, it is much more a reflection of the omnipresent organization mind, thinking in terms of hierarchy, authority, each man in his designated and "deserved" place.

The schools have responded too warmly to the demands for segregated groups. It is now commonplace to find children sorted into "ability" pigeonholes even *before they enter first grade,* when the "scientific, nationally standardized" reading readiness tests begin the chain-reacting exclusion which is usually repeated, with minor deviations, through the twelve grades of school and on into adult life.

At age six, the child begins in a "dull" class (or one of the layers short of "bright"). When the moment of truth comes to him, he may look at his image in the mirror and say, "So, you *are* stupid—you even *look* stupid."

He is young, impressionable, easily convinced, and once the image is lost in the depths of his unconsciousness, it is virtually unretractable.

Children are smart. Even the stupid ones. They pick up the labels quickly; they know what they mean. They believe in adults and are quick to imitate their opinions. The label is a selffulfilling prophecy: "a prediction of things to come (success or failure) which moves inexorably to its own fulfillment."

Ability selections are often made with the swift confidence of an egg-sorting machine, testing for size and quality—but not pro-

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gramed with the following weighty evidence:

EVIDENCE NOT USED

- There are no valid tests of "native" ability. Even the testers agree that the tests—none of them—can separate out the nature-nurture items. In racially and ethnically mixed schools, ability segregation usually results as racial or ethnic segregation, indicating even to the unbiased eye that there is weighty cultural distortion in the egg-sorting mechanism.
- We have not even agreed on definitions. We don't know what "intelligence" and "ability" *are,* let alone how to test them precisely. Recently, "creativity" has been emphasized and it is found that the "creative" and the "high IQ" types do not correspond, though creativity is if anything a more elusive quality than intelligence.
- Early selections and labeling of a child's potential tend to discourage ambition and confidence in the "masses" of children.

Many elitists have genuinely believed that, even if we did miss occasionally, in the main our society made room at the top for the "superior" individuals and that it is involved in a continuing struggle to ameliorate the suffering of those who failed to gain the summits through bad luck, discrimination, or lack of competence.

But in the postwar years, the population boomed and its most disadvantaged rural portion moved almost en masse to the central cities. Schools bulged, competent teachers were lured from teaching, and the elitists came to doubt that American mass society, at least in the sector of education, could do what many claimed it could do in all others: provide equality of opportunity, soften the harsher forms of discrimination, and reduce the deleterious effects of economic privation.

Now the elitists' children were being mixed in the same school systems with the enormous numbers of newly arrived children of the sometimes equality-minded poor. Because they lacked confidence that enough taxes could be raised to support an expanding and enriched school system, they searched for ways to guarantee children of "their kind" the educational opportunity which limited funds, they reasoned, could not give to all.

Their agitation for special treatment of the "gifted" (again, usually children of their own kind) was given enormous upward thrusts by the drive of the Soviets into outer space. Rockets became, illogically but inevitably, the rallying point for the elitist argument: to compete, we needed to give our all to the small cadre of scientifically and academically "gifted."

Little mention was made at the time about the apparent devotion of the Soviets (whatever their other sins) to mass rather than elite education, and their opposition to ability groupings and gifted child programs in the primary years.

In recent years, the mixed voices of the elite, coming through loud and clear, have all but carried the day. Now, in a new wave of discussions, mass man seems to be gaining ground. The struggles for desegregated schools (supported by the growing populations and power of Negroes in Northern cities) have helped set fire to the discussion and kept it hot and lively. Other groups—organized labor, citizens' committees in various communities, such as Detroit—and individuals have been influential.

Among those who are taking a fresh look at the schools from an egalitarian view is James B. Conant, previously uncommitted except for an occasional endorsement of the comprehensive high school on the one hand, and, on the other, support of more subtle forms of separation and selection. In a strong address to the Conference on Unemployed Out-of-School Youth in Urban Areas, Conant turned a bright light on some neglected areas of inequalities and the casually-made assumptions about "ineducables" in our schools.

Martin Mayer's *The Schools* is strongly egalitarian in tone and in most of its specific statements. As for the "gifted" child, Mayer says, the school should simply stand back and let him go; the problems of the slums schools are more complex and deserve priority treatment.

Among elitists, Rickover is the best known; bolder, too, since he dares say what others would say had they the courage. His views have been over-reported. It is enough to record that he feels we are trying to educate too many people and that those with "ability" should be segregated and given preferred treatment.

The elite critics have so firm a hold on opinion-making channels that opposing views are rarely given a passing nod. In *Crucial Issues in Education,* written in 1955 and revised in 1959, the editors observe: "Prominent in almost all serious criticism of contemporary American education is the belief that the foremost shortcoming of today's schools is inadequate concern for youth of outstanding intellectual ability."

One chapter is devoted to "Equalization of Educational Opportunity." It deals exclusively with Southern integration and federal aid to education, nothing being said about the 99 varieties of class, ethnic, and racial (Northern) inequalities in our schools. No mention is made, for example, of the fact that roughly half of the top 10 percent of high-school graduating classes do not go to college, mainly because they cannot afford it or are not encouraged by the schools.

None of the "crucial issues" touches what may in the coming decades become the liveliest issue in American schools and colleges: the problem of providing meaningful, high quality, exciting education for all children while giving them *all* an equal chance to win the rewards of school and life. ●

A Sampling of the Kind of Values Needed

Values in the Classroom

JULIA WEBER GORDON

In The National Elementary Principal

Julia Weber Gordon is Director, Office of Child and Youth Study, New Jersey State Department of Education, Trenton. Reported from The National Elementary Principal, *XLII (November* 1962), *30–34.*

WHEN I attended elementary school in the early 1920's, the classroom was a symbol. To a generation of immigrants, though they had little idea of what went on in the classroom, it meant a place where their children could "better themselves." That this was far more than opportunistic utilitarianism is revealed by the phrase that went with it, "No one can take an education from you."

What happened in the classroom became a part of you; you were a better person whether or not your status was improved. In the day-by-day living in the classrooms, the children of these immigrants became Americans, imbued with the American ideal. It was the values lived in the schools, more so than in their homes for many, that became the basic part of the value system of the children.

As in the twenties, what goes on in the classroom today is structuring the values of children. It would be unwise to underestimate the power of these processes by blaming all that happens to children on forces outside the school. Rather, classroom processes should be studied for their effect on what children are coming to value.

What should children come to value? Any list anyone could make would arouse mixed reactions. The list, at this time, is less important than the basis on which choices are made.

Perhaps the chief force affecting the development and expression of values in the classroom is the breakdown in our culture of symbolic standards which were once taken for granted, even by the transgressor. The fact that the question of "what values" has to be raised reveals the uncertainty that exists about values.

One result of the breakdown in the value structure is that it leads to the feeling of being lost in a meaningless world. Too many in our society cannot find themselves. The mentally and emotionally ill now occupy over half the hospital beds. A prognosis for children in an average first-grade class of 30 pupils is that 15 to 24 will be in the ranks of the maladjusted at some time during their life spans.

Another result of the breakdown is that we are compelled to reexamine our values, to rediscover the value in values. We must create a new universe of values. This involves making choices.

A second force, then, that affects the development and expression of values in the classroom is the inescapability of making choices among values. Anthropology shows that values held in various cultures differ to such an extent that normal ways of behaving in one culture would be schizophrenic in another. Values are subjective. We choose our values.

We are accustomed to the belief that we live in a scientific age. Some people feel that we need a new set of values in keeping with our times. At least one scientist, J. Bronowski, holds that our values can be derived directly from science. He contends that we master nature not by force but by understanding; that scientific discovery exercises the creative mind and gives order to our experience at each new level of understanding; that the habit of truth, independent thinking, tolerance, and acceptance of dissent are values that order human society as well as science, and give man a sense of identity and dignity.

That these values inevitably follow from the pursuit of scientific processes is not borne out by the evidence around us. Does the habit of truth deter scientists from contaminating the earth? It is evident that we pick our truths. Bronowski's selection of values from science reflects his sense of the inherent worth of human beings. Other scientists select other values. Science, therefore, can help us to identify those conditions that will predict greater maturity in behavior, less dependence on others, increase in expressiveness as a person, increase in variability, flexibility, and effectiveness of adaptation, and increase in selfresponsibility and self-direction. But science cannot tell us what to value. It can only help us with the realization of the values we have subjectively chosen.

If we wish children to be all that they can humanly be, what must they value? The following is a sampling, in no special order, of the kind of values we might choose.

SAMPLING OF VALUES

Openness to experience.—Everything should interest children. They should be curious, avid for knowledge. They should try new things, making and learning from mistakes, and be impelled from within to seek the truth, to correct their perception and conclusion.

Flexibility.—Children should be able to adapt effectively as new knowledge and insight reveal that the situation calls for different behavior. They should be able to hold all conclusions as open to change, recognizing there is more than one solution to a problem, whether in arithmetic or classroom living.

Objectivity.—Children should continue to see with the "innocent eye," seeing all aspects of a situation freshly, apart from themselves, in a detached way. They should have a clear perception of reality.

Complexity.—As more is understood and mastered, the increasing complexity of existence is opened to us. Children should be able to live comfortably with complexity, without the need to oversimplify and distort.

Perfection.—Children should enjoy and be awed by the perfection of form achieved by unifying diverse elements. They should want to work until the wholeness, the completeness, the rightness of the undertaking or object emerges. They should seek this in all they do, and they should be able to judge it by their own inner criterions.

Spontaneity.—Children should be able to take leaps in learning and understanding as accumulating real experience falls into wholes and gives them new insight. They should be able to create their own meaningful structures.

Rationality.—Children should be able to test the products of their imagination against the realities of the world, to safeguard their own wholeness and to give new, perhaps more valid, meaning to reality.

Integrity.—Children should have a sense of wholeness, of completeness, of being persons in their own right. They should have a deep selfrespect and be able to catch glimpses of their potential. They should be able to trust their own experience and stand alone, if need be, to uphold what seems to be true to them.

Autonomy.—Children should feel that they are ruled by laws of their own character, able to weigh and judge by their own inner criterions. They should be selfdirecting, less dependent on others for courses of action.

Responsibility.—Children should be able to tolerate the variety of conflicting solutions to problems, entertain them, and find their way through them to a choice of personal action for which they can be responsible. They should want to be active participants in life situations and, at the same time, involve themselves in making these solutions good.

Charity.—Children should be able to accept each other as they are, not judging, allowing each other to find their own way to their best selves. This is loving—undemanding, helpful, respecting the integrity of others.

These values are not easy to talk about, much less live by. It is much easier to say we value the mastery of specific content so that the child will eventually be able to get into college.

School faculties could study these values, extend them, and grapple with the difficult task of bringing them to fruition in the classroom. Difficult as it is, we have to try.

While a child has the seeds of human potential within him, it remains to the culture to nourish it and help it to become realized. The culture is people, those human beings closest to the child. What about the teacher? How must she behave, what must she be like that the values we choose can prevail? I think that the following fundamental conditions must be the basis of the relationship of teacher to child.

THE TEACHER

The teacher regards the child as equal. If the children are to value the qualities listed, the teacher must also be a person who values them. This is not to present a model to the child; patterning himself after a model, no matter how perfect, would prevent the child from becoming all that *he* could become—a unique human being, transcending the model. True, the teacher is more mature, perhaps wiser, than the child. In this way, she is a resource the child can draw on in infinite ways. And the child is also a resource to the teacher. The teacher and the child, of equal worth, separate and autonomous, can establish a relationship mutually enabling to the fulfillment of all that is good in each.

The teacher respects the child's integrity. She does not use the child, does not regard him as something to be manipulated and made over. She hears what the child is saying without being shocked, without judging. She can perceive how a situation must inevitably seem to the child, and let it be that way. She can be detached, unpunishing, allowing the child to maintain his inner unity. She can be there, supporting, as a child finds his own way in the process of growing and changing.

The teacher is real. She is what she seems to be, not trying to be all things to all people. She allows the child to know how she feels, how the situation looks to her, so that the child can perceive the consequences of his acts more accurately. The child can then see the teacher as dependable, trustworthy, and a healthy, honest communication can develop between them.

The teacher makes the present good. In each of the many daily encounters with each child, the teacher tries to do what is right for *this* child at *this* moment. It is the accumulation of these many small acts that builds into each child his selfknowledge, his values, and the behavior resulting from them. The child cannot come to hold the kinds of values discussed here unless they are lived daily. Means and ends are inseparable.

The values I have discussed here are human values. They apply in all human relationships. They are not attitudes to be worn, facades that we show to others. They are human characteristics, integral qualities of a human being to be developed by living them. If we could live such values, many of our problems stemming from extrinsic valuations of human beings would disappear. ●

IT'S fine to believe in yourself. Just don't become too easily convinced.—From *Midland Schools.*

1963

The Exodus Goes On

Angry Young Men in Teaching

SAM M. LAMBERT

In NEA Journal

THEY started on Friday night, patching cracks in the plaster, sanding the woodwork, and doing other preliminary work. On Saturday, they applied the first coat of paint; on Sunday, the second. It was the best interior painting I have seen at any price, and the cost was not out of line.

On learning that the two young men were teachers in a nearby high school, I asked, "Isn't this teaching-painting combination a bit unusual?"

"I suppose it is, but you'd be surprised how many things men in our school system do to bring in a little extra cash. I have a friend who works three hours every night in a filling station. One sells life insurance; another, cemetery lots."

After further questioning, I learned that each of the two young men was earning a little less than $6,000 per year from teaching and approximately $2,600 from painting. One was in his mid-thirties and had three children; the other was in his late twenties and had one child. The school district in which they were employed is well above average and has the best salary scale in the area.

Except for being better off financially than most, the teacher-painters are fairly typical of men teachers employed in public elementary and secondary schools in this country.

According to a survey made in 1961 by the NEA Research Division, the 450,000 men employed in public-school teaching averaged $5,500 from their work in the schools. Almost half (47 percent) were working at a second job during the school year, and over half (60 percent) held another job during the summer months. Income from nonteaching jobs averaged $1,155 for the year.

Eighty percent of the men in teaching are married, and their families typically include two children. By and large, they have more educational preparation than women teachers, but their teaching careers are much shorter. As a group, they are 10 years younger and have only half as much teaching experience.

A large proportion of these men

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have serious financial problems. Although the great majority like teaching and want to continue, thousands are forced out every year by financial difficulties. Salaries will provide the basic necessities, but if a wife faces major surgery or a son needs braces on his teeth, the typical male teacher is in trouble.

ANGRY AT SOCIETY

Many men teachers are angry at society in general and at public officials in particular. Some have lost hope that the people will ever understand or appreciate the importance of teaching. The following letter from a New York City teacher is indicative of the feelings of many:

"Although my school address appears on this stationary, I am typing this letter on a typewriter borrowed from my second job during the few minutes I can steal. This harrowing situation of working two jobs is not something a person feels like talking about these days. Who really cares? Who cares if the teacher comes in tired the next day? In most schools they rejoice at your mere presence, especially if you are a man. Somehow the administration believes men have magical powers. The only magical power I possess is that of being able to stay awake longer than most people.

"Let me get down to the miserable facts. I earn $5,575 on paper. This glorious figure boils down to $320 take-home pay per month. This is a little less than $75 per week.

"People want good teachers, but we aren't in the same category salary-wise as—you name it—plumbers, carpenters, sanitation men, policemen, firemen, clerks, or bagel makers."

One decisive factor in a man's decision to leave teaching is his deep concern for the welfare and future of his own children. Practically all these men are college graduates and they want the same opportunities for their sons and daughters. Their children, like children of other college graduates, are likely to be above average in academic ability and native talent. There are thousands of potentially outstanding physicians, dentists, and lawyers among these teachers' children—yet the male teacher who on his own can finance such an education is a rarity. Fewer than 1 in 1,000 public-school teachers makes as much as $10,000 per year.

One young teacher said that his greatest ambition was to go back to college to work on a master's degree. "In addition to improving my work as a teacher, this degree would lead to a higher salary and perhaps a better job." This teacher has a wife and one child, and after five years of teaching experience is earning $4,100 per year. "I try to save a small amount from my salary during the school year, but when summer comes I barely have half enough to pay my summer bills."

The middle-class American worker now enjoys a standard of living unmatched in the history of this or any other country. A $15,000 to $20,000 home, two or three radios, an all-electric kitchen, a TV, a new car every two or three years, a summer vacation at the beach, and bowling, golf, or some other once-a-week form of recreation are not unusual. In contrast is the male teacher who says:

"In the eleven years I have been a teacher, it has been necessary for me to work nights, week ends, and summers to provide the bare necessities for my family. The luxury of a vacation is in the realm of day dreaming. My part-time jobs have included hospital attendant, lifeguard, waiter, longshoreman, real-estate salesman, and clothes presser."

A teacher in Cleveland recently said, with some bitterness: "Teachers make a substantial contribution to the preservation and advancement of this country's system of free enterprise, but our share of the results of this system is meager."

Another man had mixed feelings about the results of his work:

"When I watch these kids grow up, leave school, marry, go to work, get promoted to better jobs, and end up with five-digit salaries . . . and know I've played a small role in their lives . . . my regrets for having become a teacher almost disappear.

"On the other hand, I sometimes wonder why so many of those we have helped the most have done so little for education in return. It would seem that the most successful former students would become ardent and vocal supporters of better schools and adequate salaries for teachers, but too frequently they do not."

EARN MORE ELSEWHERE?

Can men teachers earn more in other types of work? Impressive evidence shows that they can and do.

Thorndike and Hagen at Teachers College, Columbia University, recently reported a comparison between men who left teaching and men who stayed in teaching between the years 1955 and 1959. The average income for those teaching in 1955 and still teaching in 1959 was $475 per month. The average of those who were teaching in 1955 but who had taken another job by 1959 was $610 per month. Only one teacher in 247 made as much as $800 per month. Of those who had left, 20 percent made this much or more.

The typical man teaching today is both angry and impatient. He thinks he is entitled to a better break in this era of two-car families and electric can openers, and he is. He is fed up with working nights, week ends, and holidays trying to make ends meet on a teacher's salary. He is tired of sacrificing his family for his profession. While many people are sympathetic, the exodus of talented men from teaching goes on . . . and on . . . and on. ●

Dilemma of the Comprehensive High School

FRANK B. LINDSAY

In Journal of Secondary Education

THE American high school is a youthful institution, just 142 years of age. Throughout its history, its curriculum has changed in response to demands of the people for the education of boys and girls.

Two factors contribute to the high-school's dilemma today. The first is the stereotype afflicting both the public and educators: a tendency to assume that the same conditions hold which they experienced in their formative years. The real business of teachers is to direct the learning of today's youngsters toward their *tomorrows,* not repeating lessons that extend only to the precarious present.

A second factor abetting the high-school's dilemma is the hidden expectation that the high-school population today is, or should be, like the student bodies of a generation or so ago. The self-satisfaction of educators of enrolling all youth in high school has been marred for some by the dismaying discovery that many students vigorously reject the values and career goals held by the middle-class segment that formerly composed almost the entire student body.

It is a myth that a high school may claim comprehensiveness when it offers a variety of courses in academic and occupational subjects. A high school is not primarily a collection of courses of study. Before a proper curriculum can be established, or teachers employed, a school must face the facts of its community and recognize the genuine range of its prospective students. The entire spectrum of family backgrounds and student abilities must be taken into account. The slow learners or "indifferent" pupils are as properly a concern of high schools as the more able and average. The strategic questions are, "slow learners at what?" and "able to achieve what?"

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Academic myopia has been recognized by leading scientists and mathematicians, as witness recent efforts to modernize high-school and college instruction. Too frequently courses have been studies *about* science or mathematics. Students have not had opportunity to learn or practice how a biologist, chemist, or physicist thinks and works; what queries each must put to the world of phenomenons to obtain intelligible answers. The new approaches intend to shift the learner from a passive recipient of knowledge to practitioner, along with experienced scientists.

As the American high school becomes less a cafeteria of canned knowledge and truly a "college of learners," not misconceived as a dispenser of erudite bookishness, its potential for comprehensive service to students will appear.

Unless the high school doggedly refuses to fulfill its historic mission of educating Americans, it cannot help but shake off its longtime allegience to Carnegie units and courses couched in a stilted academic mold. Scientists and mathematicians engaged in the reformation of the learning of their disciplines have discovered that the ideas and principles central to these fields, when divested of shackling verbiage and employed in lifelike situations, may be mastered by many students formerly screened away from these studies. Countless additional students not only do well in reorganized courses, but they see sense to knowledge which they may immediately utilize in training for their chosen occupations.

The high school of the next decade promises to be an exciting institution. Faint forerunners of the high school to come are evidenced by the Trump Plan; Melbourne, Florida's ungraded high school; and the Middletown, Rhode Island, "six-year" school.

Central features of all these plans have been: organization of learnings in a given study into a logical sequence of short units, programed in advance; opportunity for students to proceed as rapidly or as slowly as their capacities dictate; and emphasis on independent mastery without the nagging spur of marks and credits.

Teachers thus become directors of learning rather than reservoirs of facts to be sprayed indiscriminately classwide. The individual is put on his own. For example, the mentally gifted are not singled out but proceed at their normal, accelerated rates. The slow learner is not cut off at the close of a predetermined number of weeks with a mark of incomplete or failure.

The situation naturally leads to considerations of costs. If the public has rested content to maintain only a superficial college-oriented high-school curriculum, the fault lies with educators who have not demonstrated at the local level the superiority of studies in depth which challenge numbers of pupils rarely touched.

A COHERENT CURRICULUM

The wastelands of American education are grades seven through fourteen. Elementary schools know pretty well what they are about in teaching arithmetic, spelling, and how to learn to read—for reading is not a single skill mastered once and for always, but a whole series of proficiencies achieved during a lifetime of study and work. In comparison, secondary schools and the lower division of colleges present a sorry picture. Teachers have been bemused by the false counsels of college professors who are only now discovering how wretched their own introductory offerings have long been. The reformed and reorganized courses high schools are beginning to introduce will fall short of the mark if left disjointed and piecemeal. Unless they become woven into a coherent curriculum, broadened by industrial arts and fine arts, students will not discern the pattern in which every part reinforces the whole, and all together build insight into the world of work.

Admiral Rickover and Professor Bestor have said little to clarify the situation, except to stimulate second glances at some of the nonsense pervading customary classwork in high school and college. Reference to European or Soviet education affords small insight for American problems. The fact is, the nations of the Atlantic basin seek guidance from the United States in recasting their own school systems. How many youngsters at age 11 can demonstrate with certainty aptitude for professional education? Early separation by examination works ill on all. The waste of undiscovered potential of adolescents would be intolerable to Americans.

LINK THINKING AND DOING

A dominantly verbal education puts a premium on passivity and glibness in mouthing phrases cherished by teachers. In contrast, high-school courses that link thinking with doing effect changes in human behavior, which alone means education. A high-school graduate stuffed with fragments of knowledge is almost useless to himself as a citizen or to the nation as a productive member of the labor force.

It may be that the high-school has been eliminating the wrong end of the student spectrum. A high-school program can be reliably appraised only in terms of the changes in behavior it makes in its students. Psychologists Jacob W. Getzels and Philip W. Jackson, University of Chicago, and Liam Hudson of Cambridge have lately demonstrated that high IQ too often conceals tendencies to conformance — the grey-flannel syndrome—and that "divergent" types sometimes represent potential for imaginative and creative thinking.

The applied arts have grievously been misapplied to high-school students. In the first place, vocations today demand skills as much intellectual as manual. Again, instead of a dumping ground for academically unsuccessful pupils, the industrial arts should be an accompaniment for any academic curriculum. A student with a pair of skillful hands can surmount occupational obsolescence many times over. Expenses for facilities that really train for manual dexterity to accompany development of understanding and imagination will be borne by a public that *sees* the superiority of a new kind of high-school graduate. ●

Programed Materials Today

HERBERT A. THELEN

In The Elementary School Journal

WHAT I am about to describe is a reaction away from the recent neo-orthodoxy of the teaching machine and programed materials and a movement towards the positive goal of improved educational practice. I am going to assume some familiarity with the Skinner-Crowder concepts of machines and programs.

We are moving away from a set of dubious concepts about selflearning materials. They seem to me to be on the wrong track. I shall list some of my doubts and criticisms and make suggestions for corrective actions.

First, the notion that the learner must be rewarded at each step is by no means proved. Experiments similar to Skinner's studies on rats have shown that latent learning, unguided and unrewarded, does take place.

Reward should be available only during or after effort, and should be commensurate with effort. The "step" is not a unit of effort and, in any case, is supposed to require a minimum of effort. For rewards to be possible, a program must be purposive; it must have possibilities of risk.

Second, if we assume that reward is necessary at each step, the question becomes one of deciding how to give the reward. The present answer is to have steps so easy that the student makes few errors. The doubt is that continuous success is, in fact, rewarding.

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This criterion of continuous success needs to be replaced by the criterion of visible progress toward a goal. In this view, "wrong" responses are highly useful if they eliminate unproductive pathways or help define what needs to be done next. The required program should employ at various times a large number of bases of judgment.

Third, the criterion of a good linear program so far used is that it be error free; but the relationship between this criterion and any educational criterion remains unestablished.

The educational criterion suggested is progress toward reaching a conclusion, toward formulating a hypothesis, toward summarizing an argument, or toward accomplishing other meaningful intellectual tasks.

Fourth, while the art of programing is very much concerned with developing an effective sequence of items, two experiments have already revealed that students learned just as much when the items were presented in random order as when they were presented in sequence designed by programers. In other words, the programs were regarded simply as collections of discrete, independent information. This suggests that if the purpose of the program is to teach information, then sequence does not matter. If the purpose is to teach principles that must be developed over a set of items, then it appears unlikely that principles will be learned through present sequences.

This idea of learning through a fixed sequence of small discrete steps must be discarded. For all learning not confined to nonsense syllables, the requirement is for seeing relationships within a pattern of elements; and this pattern must be visible as a whole. The pattern may be built up through a sequence of small operations, but it must accumulate and remain before the student.

The required program will enable the student to search out a pattern from a number of elements, and it will then require him to make interpretations from this pattern. The sequence of operations will be unspecified; the student must seek his own path. The quality and character of this path are of great concern; it must not be controlled by the programer.

Within the present movement, the role of the teacher is unspecified. It appears to be that of doing whatever has to be done to make the program work. But discussions of this problem merely emphasize the notion of relieving the teacher from drudgery and freeing his time so that he can talk with individuals. The relationship between experiences with the materials and the nature of class discussion remains unspecified—therefore the place of the materials in teaching remains unspecified.

The teacher actually is the overall supervisor of all activities in his course. He determines which activity to set up next through diagnosis of the imperatives for further experience generated in preceding activities. Each activity is seen as a part of the whole, and each activity has a unique flavor because of the way it fits into the whole. Within the sequence of activities, there will be some that can best be done by the student alone, others that will require the interaction of the teacher and other persons. Thus the idea of completely selfcontained programed material is rejected in favor of the notion of fairly substantial programed task-problems that emerge through discussion of experiences with preceding problems.

MISLEADING TALK

Sixth, the talk of individual differences is misleading. The only individual differences the programs can cater to are differences in speed of going through the program and differences in the size of step or in the number of steps. The same program is used with all students, the same mental skills are required of all, and the content is covered in the same way.

Individual differences should not be something to ameliorate or to sweep under the rug by mechanical means. The fact that individuals have different needs and different points of view is the basic strength of democracy. This fact plays a major role in inquiry within the community of scholars. Programs should give students maximum practical freedom to find their own paths. The teacher should capitalize on the differences among these paths to illustrate various approaches that might be taken. If all students think the same and take the same paths through tasks, then there is no difference or conflict among them and hence no stimulus or justification for class discussion.

Seventh, the notion that learning is better when it is active, and that the machine requires activity, is uncertain in its application to present programs. A number of experiments show no differences in learning when the student actually makes the responses as compared with when he merely reads the items.

Eighth, there is no control over student purposes or motives. It is assumed that the student wants to be successful and that the continual feedback of knowledge of success will keep him going. For the most part, the student has little idea where the program is headed and he, therefore, has little opportunity to find means-end relationship between each item and some clear-cut purpose for his activity.

In regards to points seven and eight, the concept of activity is meaningless unless it is linked to the concept of purpose. Activity can be judged only as having some degree of appropriateness to a purpose; the means-end relationship is central. If the student can achieve his purpose better by not taking the time to write responses, then either he should not be expected to write responses or the purpose should be redefined in such a way that making responses is essential.

Ninth, and last, present programs are designed to be teacher-proof and selfcontained. By definition, then, they cannot deal with unanticipated or emergent purposes, feelings, or ideas: they are limited to the alternatives and ideas thought up by the authors before publication of the programs. The emergent aspect of learning, the creative part and stock in trade of the inquiry-oriented teacher, is relegated to helping the individual.

The emergent aspect of the learning situation consists of ideas and discoveries made by the student. The materials must be designed to stimulate a wide array of such discoveries. Some can, of course, be anticipated from the internal logic of the situation; but there is always a unique flavoring, an effective element, which gives a logical possibility its own meaning to the individual. The teacher is concerned with the logical possibility, *plus* the context of assumptions and purposes in which it is embedded in the thinking of the student. It is these underlying apprehensions which, in conflict, produce the sense of a problem and which constitute readiness for new learning through discovery and inquiry.

As we consider the objections and how to overcome them, we become aware of what the programed materials would look like. They would be guide sheets for inquiry activities. They would be resource materials to draw on as needed. Filed and cross-indexed, the same sheets might be used in different ways in different units or courses. Each student would accumulate these sheets during a course, and, together with other materials such as bibliographies and reports, they would constitute a selfmade reference manual on the subject.

The sheets themselves would require many responses and many choices which, when taken together, would encompass a single experiment or problem. For some responses (those involving the search for a pattern), the student would get immediate feedback; for other responses (those involving interpretations and speculation), machine feedback is impossible, and the student would get his feedback during the subsequent discussion.

The source of the items is to be thoughtful teaching experience, not studies of infrahuman learning. The purpose is education of human beings, not the efficient transmission of information.

In viewing the job ahead, we can see several interrelated focuses. One, cognitive pathways, has to do with establishing that each item in fact typically engenders thought processes through which inquiry can progress. This calls for empirical study of students as they perform with items.

A second focus places these kinds of thought processes in an educational setting. What is the course of development of these processes? What qualities characterize sophisticated and productive inquiry? What factors of temperament, background, opportunity, and demand influence the development of these qualities?

The third focus is on teaching method. Does experience with the materials have the hoped-for consequences on subsequent activities? What characteristics of the dialogue lead to development of readiness to use the materials as part of inquiry rather than as a hurdle to clear?

Last, a focus more diffuse, has to do with promulgation of ideas, skills, and concepts throughout the field. We shall have to learn to define a variety of roles through which large numbers of teachers and others can identify with the purposes, assimilate some of the ideas, and develop skills that will contribute directly or indirectly to the proposed and needed reconstruction of education. ●

Professors of Education as Critics of Education

MYRON LIEBERMAN

In Phi Delta Kappan

I BELIEVE that professors of education (or "educationists") have been so preoccupied with responding to invalid criticism that they are losing their role as critics, both of their own subject matter and of our educational system generally. I realize that this statement does not apply, or apply equally, to every educationist. Nevertheless, I am convinced that it is a legitimate statement of a central tendency, at least in the few fields with which I am familiar.

Let me begin with my own field, philosophy of education. My graduate work (1949–52) emphasized the study of certain philosophical categories (pragmatism, idealism, realism, Thomism, etc.) and their educational implications.

Unfortunately, the philosophical categories involved have long been discredited in the field of philosophy. They arose originally as different answers to questions about the nature of reality or the nature of knowledge. The original questions have now been answered or reformulated so that the historic differences concerning them are intellectually and practically irrelevant.

Actually, educational positions cannot be logically deduced, nor do they follow from such philosophical categories as realism, idealism, pragmatism, and so on. "Pragmatists," for example, frequently disagree on specific educational issues; persons who accept different philosophies frequently agree on such issues. Disagreement between individuals who accept the same philosophical label is never the result of one drawing the incorrect implications from his philosophical position. It may, however, be due to the fact that *no* educational implications can be drawn from the philosophical categories taken seriously in philosophy of education.

The defense that philosophy of education deals with values, and that teachers must be clear about their values to do a good job, has little to recommend it. Every subject involves values. Whether or not formal study of them is helpful, it is absurd and presumptuous to

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regard philosophers of education as experts on what values or goals teachers should strive to achieve.

Most philosophers of education deal with pseudo-issues, hence it does not matter what conclusions students reach concerning them. With educational administration, the damage is much greater. These courses deal more often with genuine issues. Unfortunately, the treatment of these issues is such that it would often be better if the issues were ignored.

For example, according to the gospel of school administration, local and state school boards should be *elected* on a *nonpartisan* ballot, held separately from regular elections. The idea is to keep politics out of education—or is it education out of politics?

There is no evidence to show that elective boards are superior to appointive ones. Indeed, what evidence there is confirms the superiority of appointive boards. The notion that elective boards give the people more control than do appointive boards makes sense only if you ignore the realities of contemporary politics.

EDUCATION AND POLITICS

Probably nothing has enfeebled teachers more than the belief that education is, and ought to be, insulated from politics. This belief has a certain plausibility because some educational matters, such as the content of the curriculum or choice of textbooks, should be regarded as professional matters.

However, it is equally clear that other educational issues, such as the level of public expenditures of education, are inescapably political decisions. It is nonsensical to think that the level of public expenditures for education can be less of a political decision than the level for national defense, highways, or that requiring school-board candidates to run without party labels changes the political character of certain issues they resolve.

If teachers realized that political power is essential to achieve their objectives, presumably they would devote their energies to developing such power. Unfortunately, educationists have successfully indoctrinated teachers with the idea that education is a nonpartisan activity of government. As a result, teachers' organizations do not typically contribute to campaign funds or provide the legwork essential to political success. Their concept of political participation seems limited to the sending of last minute telegrams and letters to legislators, most of whom are singularly unimpressed with the teachers' lobby.

Granted, I may be mistaken in ascribing such harmful consequences to the policy of treating education as a nonpartisan activity of government. But I feel no such reservation in asserting that the uncritical way this policy is taught in schools of education is a disgrace.

This brings me to a related topic, teachers' organizations. For the most part, professors of education are apologists for existing organizations. Instead of analysis and criticism, the prospective teacher merely gets exhortation to join his local, state, and national associations.

In the age of the pressure group, one might expect some educationists to focus attention on teachers' organizations as pressure groups. Yet there is not a single school of education in the country which pays serious attention to the weakness of teachers' organizations and our desperate need for better organizational leadership. Just one major school of education conducting a serious program for developing better organizational leadership in education would do more for education than dozens of prestige schools engaged in producing "educational statesmen," more commonly known as school administrators.

My dissatisfaction would be less if I thought schools of education were adequately preparing school administrators. Current programs range from harmless to shocking. For instance, not one (to my knowledge) visualizes a meaningful role for teachers' organizations in personnel administration.

The same criticism applies, albeit to a lesser degree, to educationists who teach curriculum courses. During the past few years, major curriculum study groups, such as the Physical Science Study Committee and the School Mathematics Study Group, have been the most important single factor in improving the elementary and secondary curriculum. These groups were initiated by persons outside the schools of education. With a few exceptions, curriculum professors did not provide any leadership in launching or implementing the work of these groups.

CERTIFICATION

Turning to another matter, state boards of education that set certification requirements clearly are important centers of educational power. Their composition and operations are matters of the utmost importance. At present, these boards are set up in several different, even contradictory, ways. In some states, teachers are excluded from the boards by law; in others they are included by law. Other equally extreme differences could be cited.

The chaos in our certification structure—a basic cause of the chaos in certification requirements—exists partly because so few educationists regard it as a matter of concern. We do not even have a model certification structure on paper to give us direction on how many persons should be on the boards, how they should be selected, what should be their budget, and so on. These questions are dismissed by saying that each state has its own problems and must develop its own structure. This removes any obligation to conduct critical analyses of how the boards operate.

I have much the same feeling about many other key centers of educational power, such as the foundations and accrediting agencies. I do not expect everyone to conduct critical studies of the ways these agencies actually operate. My point is that their absence is virtually total. It appears as if everyone is too busy accommodating to an existing distribution of power to raise embarrassing questions about its actual impact on education.

I cite as one final example of my criticism the fact that educationists are not providing a realistic understanding of education. The Catholic school system has an enormous influence on school finance, certification, accreditation, and many other aspects of education. Nevertheless, most professors of education I know do not have the vaguest idea of who decides when and where Catholic schools are built, how they are financed, their administrative structure, and so on.

The Catholic requests to participate in federal aid to education are well known. We are told that Catholic parents resent the injustice of "double taxation." I am certain that such resentment exists. Nevertheless, I have been unable to find one study that sets forth the *total* out-of-pocket costs to Catholic parents of sending their children to Catholic schools. No doubt the figure varies from community to community.

It seems incredible that the issue could be debated so long and so fiercely but with so little data. Instead, there are discussions of "Thomism" or "enoscholasticism," as if these categories somehow explain controversies over federal aid to education or bus transportation for Catholic school students.

Potentially at least, education is as important, as interesting, and as exciting as any other discipline. In fact, however, educationists are paralyzed by a collective insecurity and a neurotic concern with academic respectability. For this sad state of affairs, the educationists have only themselves to blame and only they can remedy the situation. ●

● If you can't think of a snappy retort, a carelessly concealed yawn is often just as effective and much less dangerous.—From *Wisconsin Journal of Education.*

● A young man, turned down for second-term enrolment at one of the state's colleges, told the admissions counselor, "But, sir, I don't understand why I'm not to be permitted to re-enter. These test scores alone prove that I need an education more than the rest of those guys."—From *Mississippi Educational Advance.*

● We hate to have some people give us advice, when we know how badly they need it themselves.—*Midland Schools.*

The Nation's Most Unusual School

Abo—an Underground Elementary School

In The Nation's Schools

THE most unusual school in the country is the Abo Elementary School in Artesia, New Mexico. Built completely underground, the school building is also this nation's largest fallout shelter.

The school is just 35 miles from a Strategic Air Command base; and a dozen or so other air bases and missile launching sites are within a 200-mile radius. As an elementary school, Abo houses 540 pupils; as an emergency fallout shelter, the building can house and feed 2,160 people for two weeks.

Even without the fallout-shelter feature, underground school construction seems a logical development for Artesia. It represents the ultimate in air conditioning—without air conditioning Artesia schools lose in teaching effectiveness the first six weeks in the fall and the last six weeks in the spring due to extreme heat. The town also has two windowless, above-ground schools fully air conditioned to minimize the 120°F. annual temperature swings.

The layout and design of the Abo school resulted from an eight-year study of engineering and architectural problems. Object: to create an optimum learning environment. Color, lighting, furnishings, air conditioning, and facilities all were carefully chosen in hopes of creating an effective educational climate.

Reported from The Nation's Schools, *LXXI (January 1963)*, *80–86.*

Even so, the idea had to be sold to the public. At the conclusion of a six-months campaign to inform the public about the plans for putting the school underground, a $336,780 bond issue passed by a four to one vote. The difference in cost between a conventional school and the combination school shelter, $13,843, was underwritten by the federal government.

The architects designed a building that was first a school, but one that could double as a shelter. From the outside, the view is of a concrete slab, 200 feet long and 144 feet wide, with concrete entrance kiosks at three corners. The fourth corner is marked off for a basketball court. Steel canopies link the three entrances, sheltering walkways from sun and rain.

Downstairs there's no hint that the school can double as a shelter. Tasteful decor, bright cheerful colors, and plenty of light remove any sensation of being underground.

Classrooms open off both sides

of a U-shaped corridor. The open end of the U forms a large multipurpose room for lunchroom and assembly programs.

There are 18 classrooms—three for each grade level—measuring 28 feet square. Each has a wash-up sink and drinking fountain; and each has different colored furniture in bright red, blue, green, and yellow.

The four windowless wall areas are available for teacher use (a popular feature with teachers). Touching a light switch transforms a classroom into a darkened theater for viewing films or slides. Each classroom is equipped with a 70″ x 70″ screen and projection equipment.

A diagonal seating arrangement permits pupils to view two walls without discomfort. Lighting is engineered to provide modulated illumination at every point in the room. Intensity varies from 30 to 50 foot candles, ample for close work. The different intensities create modeling shadows.

Classrooms are designed to cut down noise. Floors are asphalt-asbestos tile, ceilings and walls are acoustic plaster, and doors are soundproofed for minimum distraction from other classes. The furniture has snubbers to hush noise from moving chairs and tables.

Each classroom has two entrances: one opening to the adjacent classroom, and one opening to the corridor. All classrooms have clocks, separate thermostats, and a speaker linked to a public-address system in the principal's office.

The mechanical heart of the building is the equipment room, located next to the multipurpose room. It contains the air-conditioning machinery and a standby emergency generator.

AIR CONDITIONING

The air-conditioning system supplies each room with hot and cold air through a double-duct system. Whenever the outside temperature is above 56°F.—most of the year—artificial cooling is needed because of the heat generated by people and lights. Outside air is used for cooling when the outside temperature is below 56°F. As the outside temperature drops, dampers to the outside begin to close automatically and the air-conditioning system recirculates more interior air, reducing the amount of cold outside air that must be heated.

The school built underground poses more of a cooling problem than one built above ground, due to the heat generated by lights and occupants and the insulating effect of the earth. Air moving past a building above ground, even on a hot day, carries off more heat than the earth around underground construction.

When the building is used as a shelter, the cooling system uses water from a well 180 feet deep located next to the school. The water is returned to the ground through a separate shallow well nearby. Standby pumps are capable of boosting the 150 gallons-per-minute capacity for ordinary operations up to 230 gallons-per-minute capacity under shelter conditions.

Under survival conditions, only minimum outside air will be brought into the building. A series of concrete baffles will reverse the air flow so heavier particles will drop out. Then the air will pass through a series of filters.

As a school, the building is heated by a gas-fired boiler. As a shelter, the building will need no heating system, since the heat output from the occupants will be more than adequate, even in subzero weather.

To maintain electrical service, the school is equipped with a stand-by generator powered by a diesel engine. The moment regular power fails, battery-powered emergency spotlights automatically come on to light corridors and other essential areas. At the same instant, heavy-duty batteries start the diesel engine. When the generator comes up to full electrical output, the emergency lighting system automatically shuts off. A buried tank holds 10,000 gallons of oil, enough to operate the engine for a month.

The Artesia school system is planning a five-year testing program to find out if holding school underground will have any bad effects on pupils. Three schools will be studied: the underground school, a windowless above-ground school, and a conventional school. Pupils, parents, and teachers will undergo intensive testing to learn of any unfavorable reactions. Other factors, such as operating and maintenance costs and administration will be studied and compared.

Artesia's school officials say that the underground building offers some economic benefits. Their windowless schools above ground afford savings in air-conditioning costs over conventional buildings, and more savings in air-conditioning costs are expected by putting the building underground. Electric load for the underground structure is expected to be a third more than for a conventional school, but this is expected to be more than offset by savings in maintenance. The Abo school has no windows to replace, very little trim to paint, and maintenance costs should be pared further as the periodic dust and sandstorms will just blow over—instead of into—the underground school.

To date, the community is satisfied with its underground school. Recently the school board proposed building an underground junior-high school that could also serve as a shelter for 3,000. A $1.35 million bond issue was passed with hearty endorsement. Plans are for classrooms, study hall, library, and offices to be underground; the gym and cafeteria will be above ground. When finished, the new junior high, along with Abo Elementary, will be able to shelter "the most important one-fourth of Artesia's population — its children," says Frank M. Standhardt, architect for the underground schools. ●

The Junior College: Search for Educational Identity

DOYCE B. NUNIS, JR., and RICHARD M. BOSSONE

In Junior College Journal

WITH the increase in college population and the rise of admission standards in universities and colleges, the junior college is being forced to assume a more important role in higher education. To respond to these forces and to assume such a demanding role, the junior college will have to move rapidly toward achieving an educational identity. It has remained too long in a state of limbo because of confusion resulting from different organizational patterns and by the multiple purposes the junior college has had to undertake. However, in spite of this, the junior college has done an exceptional job.

Historically, the junior college has been an institution in search of an educational identity. The first junior college founded in Joliet, Illinois, in 1902 was a fluke. It resulted when a school district built too many buildings for its enrolment and William R. Harper, President of Chicago University, suggested the space be used as a continuation-adult facility.

Even the name to designate the institution implied an institution *junior* to college rather than an integral part of college as we think of the term.

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The result was a confused identity: shared high-school premises; secondary credentials for faculty; and belated recognition by schools of education of the junior college as an independent area of instruction and research.

The search for identity continued. Born in a time when educational attention was turned to the practical and the vocational, and, with the influence of the "progressive" educational movement at the time, the junior college became, in effect, a jack-of-all-trades. A center for vocational training, adult education, remedial instruction, and preparatory training for transfer to higher institutions, the junior college suffered because it had to function in too many ways. Yet it made positive contributions.

The simple documented fact is: The junior college, from its inception, has been largely an educational institution dominated by the secondary schools and the secondary outlook. This is exemplified in California with its credential arrangements and the lack of an effective and independent voice for the junior college in the office of the State Superintendent of Public Instruction.

CALIFORNIA EXAMPLE

To press this point, look at the document *A Master Plan for Higher Education in California*. The *Master Plan* recommends that the state constitution be amended (as it was): "Public higher education shall consist of the junior colleges, the State College System, and the University Of California." Note that the words "junior college" are not capitalized, that the junior college is referred to as "public higher education"; yet the junior college is a legal extension of secondary education.

The apparent conclusion is: The junior college is a partner in higher education but still does not have an identity as does the state college system or the University of California. Yet, in Section 2 of the amendment we read: "Nothing in this section shall be construed as altering the status of the junior college as part of the Public School System as defined elsewhere in the Constitution." Note again the use of capital and lower case letters.

In the same section one finds the statement that the junior college is to be governed by "local boards" and is to be left under the control of the State Board of (Public) Education. Then: "Said public junior college (note the absence of "higher education" here) shall offer instruction through but not beyond the fourteenth-grade level." We fail to find in the *Master Plan* any reference to the freshman and sophomore years in the university or state college system being designated as the thirteenth and fourteenth years. This poses the problem: Is the junior college an extension of high school, in effect the thirteenth, fourteenth years? As such can it be an institution of higher learning?

The dilemma is further complicated by the statement: "The junior colleges have been, and ought to be, community based and locally controlled. However, they are part of the public school system; they exercise a state function; and they are financed with substantial amounts of state funds."

The striking note here is the juxtaposition of "community based and locally controlled" and "a state function." The state colleges and the university are institutions serving a "state function" and are controlled on a centralized basis. Does this deter from their capacity to function? Hardly. But what of the junior colleges?

It appears that the *Master Plan* provides for the status quo. It fails to architect a precise educational identity for the junior college. It is considered an extension of the secondary school—the thirteenth and fourteenth years; yet, it is to be an institution of "higher learning." How can it be both?

Without a true educational identity it is inevitable that the junior college will fail to fulfill all of its purposes with excellence. With such a diverse student body, the junior college has been forced to think in terms of multiple purposes. Yet many administrators admit that few students are interested in a strictly terminal curriculum. Few students want to admit that they are not doing "regular" college work whether they are qualified or not. Is the junior college, then, with its pluralistic but frequently contradictory character, merely reflecting the nature of a confused society—a society which places little value on the intellectual but yet believes a college education is necessary? Is the junior college, with such a pluralistic view, resolving anything?

The lack of an educational identity also poses a question concerning staff: Can a staff be in agreement with the multiple purposes? Is there not likely to be considerable differences in point of view between teachers of academic subjects and those of applied subjects? Would they not be inclined to favor one pattern over the other, according to their orientation, and contribute to the confused identity?

RECOMMENDATIONS

The situation demands that the junior college find its identity and a purposeful direction. To help insure that end, the following recommendations are offered for consideration:

Recognition of the fact that the junior college has the golden opportunity for developing an articulate educational identity.

A call for internal review of philosophy and purposes in joint participation with administrators, faculty, and state educational leaders.

Gearing of curriculum and methods of instruction more *realistically* and *definitively* to those students who will and will not transfer.

Setting and maintaining realistic standards of excellence for itself and its hetergeneous student body.

Freedom from secondary control.

Development of more specific academic and professional requirements to insure proper training and procurement of teachers, administrators, and counselors who will have the educational understanding and vision to work in this complex institution.

Creation of junior-college academic senates to participate in formation of educational and administrative policy.

Adoption of professional rank to encourage and promote the teacher's professional growth and the prestige of the institution as a partner in higher education.

Operation of the junior college by a local board of its own.

A move toward some form of junior-college centralization so that it can speak collectively with authority and force in determining its policy and progress. ●

What One School District Does

Tapping Community Resources

In School Management

Reported from School Management, *VII* (*February 1963*), *50–52.*

THERE'S a great difference between a class in which a teacher tells what he knows about outer space and a class in which an astronaut "guest lectures" on the same subject. Teachers—and students—daydream of the latter.

Although persons like Col. Glenn cannot be available for many class appearances in schools, teachers *do* have available many talented and knowledgeable resource persons within their own communities. The twin problems:

These local resource persons are never asked to speak to school classes. And few people, least of all teachers, even know who they are, or what kind of a job they can do.

These problems are solved through the use of a simple form, a simple filing system, and a little ingenuity in the Radnor Township, Pa., school district. The procedure enables teachers to call on experts in the town, asking them to talk to or otherwise assist students in class lectures, personal career counseling, research, etc.

The procedure takes advantage of every business and profession represented in Radnor—from advertising and architecture, to dancing and dramatics.

Most of the community's resource persons are identified when their children enrol in school. As each child is registered, a letter is sent to the home explaining the purpose of the Participation Plan. Enclosed are two questionnaires asking for such information as education, specialized training, avocations, foreign travel, and handicrafts of both parents. Most of the parents respond with enthusiasm.

The forms request data about photographs, slides, recordings, or artifacts they might have to illustrate their fields of interest, and when they might be available for appearances at school. Also included are questions about public-speaking experience, exactly where they would like to help the school (in class, at home, at office, etc.), and requests for the names of other persons whom they would suggest that the school contact.

When the information is returned to the school, it is transferred to file cards specially designed for this purpose. The cards are titled "School Participation Records." Space is provided for keeping a record of the participant's appearances.

Men's cards are green tinted; women's cards, yellow. They are filed so that the right-hand edge of each card overlaps the one preceding it. A numerical sequence, coded to principal fields of interest, is on the visible edge of each card. The code number is marked in red ink. A man who has traveled in Europe, and is prepared to talk on the subject, is assigned code 20; a biologist gets code 11; a secretary, code 39; a policeman gets the all-purpose community-service code of 48—which includes fireman, librarians, etc.

The public-relations coordinator fills out cards for persons who have no children in school but who are willing to participate. Other school personnel add cards on volunteers. This extends coverage to neighboring communities.

From time to time, the superintendent, T. Edward Rutter, sends a notice to teachers reminding them that resource persons are available. The notice includes a "please return" form on which the teacher indicates her desire to have a guest lecturer, the subject, and the time.

When these requests are received, a clerk looks to the file for the appropriate "interest code," then sends to the teacher the names of several resource persons, including some basic information about each. The teacher then selects the person who she feels would make the best contribution, telephones the volunteer, and arranges for a visit. Under no circumstances does anyone but the teacher make the final selection as to who will address her class.

After an appearance by a volunteer, the superintendent sends out a personal letter of thanks (no fees are ever requested, no payments are ever made). An office clerk notes the date of the appearance on the card, and, after hearing from the teacher, the clerk notes the success of the volunteer's appearance on the card.

This record-keeping provides a good reference for other teachers who may wish to request this person's attendance. It may be noted that the volunteer used a "canned" presentation, one he always gives no matter what the situation; that the volunteer required the use of a projector; that the volunteer's remarks were especially appropriate just before examinations; that the volunteer tended to speak below or beyond the level of understanding.

The Participation Plan has been in operation for two years, and cards for about 600 resource persons are on file. The public relations coordinator for the district, James Plummer, says, "We add almost 300 cards a year. In a short time, we will have the entire community's resources on tap. The cost of administering this program? It's peanuts!" ●

Discovering the Secret of Motivation

The Mathematics Laboratory

ELDERT GROENENDYK

In Midland Schools

IT has been realized for some time that the problem of motivation in certain mathematics courses cannot be neglected. Teachers of ninth-grade general mathematics have mixed emotions regarding the benefit pupils derive from spending a year learning much of the same subject matter that was presented during the past eight years.

Even pupils who are interested in mathematics for the sheer thrill of working mathematics sometimes lose interest because of the lack of motivating factors. Various attempts have been made at introducing gimmicks and activities, but generally the classroom is too poorly equipped with materials to allow the class to adequately pursue activities once they are begun. Simple, homemade gadgets prove valuable in many ways, but are too limited to provide long-time motivation.

As a pupil enters the mathematics classroom, chairs, desks, and chalkboards give a feeling of "just another classroom." In contrast, however, motivation builds within him as he steps into the physics, chemistry, or biology laboratories. The smell of acids, the chirps of birds, or static from amplifiers awakens a sense of laboratory experimentation.

If mathematics is a science, and mathematicians acclaim it "queen of the sciences," why shouldn't a scientific approach be considered? Why shouldn't a laboratory for experimentation and discovery be provided for the "queen" as well as for the subjects of biology, physics, chemistry? Surely, basic mathematical discoveries might be made in the proper atmosphere of a mathematics laboratory.

A few teachers have been able to convince administrators and board members that a mathematics laboratory is necessary to provide complete opportunities for all pupils. Several mathematics laboratories have been installed in schools about the United States. Two installations, made possible by the National Defense Education Act of 1958, are at Carlisle and Marion high schools in Iowa. They have been employed in attempts to cope with frustrations of pupils in general-mathematics courses — problems which every high school must attempt to resolve.

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Mathematics laboratory equipment includes: overhead and wall-screen projection equipment; a complete library, including a wealth of supplemental materials; rigid models of geometric shapes and designs and a variety of flexible models and figures; hand adding machines and an electric calculator; drawing boards and instruments; magnetic chalkboard and devices for use in explaining set theory, number line, and numeration systems; a planimeter to aid in teaching an understanding of formulas for areas of regular and irregular figures; slide and film strip projectors; a complete transit set; and other tools and aids which can be of aid in creating a laboratory atmosphere.

What have been the results of the mathematics laboratories with all their geometric models, counting and measuring devices, calculating machines, etc.?

For one thing, the pupils themselves say that they learn better and understand more clearly the mathematics concepts which are presented with models or manipulative devices.

The teacher of mathematics is repaid in many ways for all the time and energy necessary to preparation for teaching in the laboratories. Discipline problems fade away under the force of new-found pupil interest. Truancy is no longer a significant problem as the pupils want to be in class. As interested, learning pupils, they begin to ask questions which may send the teacher back to his books. As a result, the mathematics laboratory can mean renewed interest and changes of attitude for the teacher as well as new-found interest for the pupil.

The practical applications with physical manipulations of equipment and materials give the pupils an opportunity to really get the "feel" of mathematics. Many basic concepts become quite evident as pupils work with appropriate equipment and materials.

Time is required for the full effect of the mathematics laboratory to become evident. Most teachers will require a couple of years to become oriented to the new method, and pupils need time to become acquainted with the various materials available. A positive note in this respect is that enthusiasm created each year in pupils taking the laboratory course will stimulate other pupils. If only a few pupils taking general mathematics become interested to the extent that they continue into the more advanced mathematics courses, the laboratory is well worth its cost.

Although the mathematics laboratories are experimental, much of the equipment and materials placed in the laboratories is time-tested and has proven profitable in instruction in mathematics. Reports from teachers who have taught in the laboratories have been encouraging, even enjoyable to some of the teachers, who state that there is far less strain than in teaching traditional mathematics in a conventional classroom. ●

Japanese Education in Transition

RONALD S. ANDERSON

In Educational Perspectives

THIS is a time of transition for Japan's educational programs. The sweeping changes of the occupational period—1945-1952—were the most drastic reforms in the nation's history. Initiated and guided by American educational advisors, and carried out enthusiastically by most Japanese teachers, they gave Japan a system strikingly like that of the United States. Now, a decade after the end of the occupation, significant changes are again being made.

A major problem of the Japanese educational system is the articulation of the various parts of the educational ladder, especially junior high, senior high, and university. At present, family and social pressure, as well as desire to qualify for a choice job, cause all ambitious youth to point towards the prestige institutions at each level, the "first junior high," the "first senior high," and finally, Tokyo University, which stands at the apex of the educational pyramid.

The examination hurdle (called "examination hell") has come almost to dominate and distort the purposes of the whole educational system. The new curriculum, forged by dedicated and creative teachers, has been cast aside in favor of cramming for examination to the next higher level. Teachers are under pressure to produce successful examination-takers, since teacher reputation depends on the number of their graduates entering the better schools. Parents are under pressure to provide tutoring to give their offspring the best possible chance in the cut-throat competition each youth must face. During the last year of each level—sixth, ninth, and twelfth grades—the curriculum gives way to systematic cramming.

A crude type of guidance is offered, such as advising a student *not* to take the examination for a certain prestige school, but there is little real guidance based on modern tests. Without adequate counseling, students totally unfitted for the academic education drift into the college-preparatory stream in sec-

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ondary school, get discouraged, drop out, and enter the job market unprepared occupationally.

The single-track program of post-war years is now under attack. In answer to demands for middle-grade technicians by a rapidly expanding industry, the Ministry of Education has set up a differentiated five-year technical school, composed of a three-year senior high and a two-year junior college. It will concentrate on science, mathematics, and technical subjects. The Ministry of Education announced the opening of 23 such schools this year.

This movement toward such a technical school is bitterly opposed by the junior-college association, the Japan Teachers Union, and the Socialist Party as a "backward step, a breach of the post-war educational reform."

The Japanese place a high value on education, and because of their expanding expectations from it, often express dissatisfaction with their schools, even though Japanese schools are modern and sophisticated institutions compared to schools in the rest of Asia.

Complaints come from several quarters and are sometimes politically motivated. Conservative academics and many parents complain that achievement standards are lower than in pre-war days. The Ministry, with little scientific evidence, claims that nationwide testing shows that standards in science and mathematics are lower than formerly, especially at the junior-high level.

Critics fail to consider that they are comparing a school which is now compulsory and which takes in all the children, with a pre-war institution which was highly selective and academically oriented. Terminology also contributes to the unfair comparison, since the new three-year junior high (grades seven to nine) is called by the same name as the old five-year (grades seven to eleven) "middle school."

Senior-high teachers and principals who are pre-war trained find the graduates of the new junior high painfully ill-prepared, while university professors constantly downgrade the current senior-high product. In reaction, secondary teachers try to meet criticism by constant drilling and adding content. At this level, as well as at others, students and their parents suffer.

THE MORALS COURSE

Another familiar complaint against the schools is that youth are wild and disobedient, prone to delinquency and crime. Traditionalists point out that the American occupation banned the "morals course" in schools on the basis that it had been a tool for ultranationalistic indoctrination. An editorial in *The Japan Times Weekly* said: "Even though the ultimate source of morality—loyalty to the Emperor—may be argued to have been anachronistic, it did serve as a stabilizing force for Japanese community and a criterion for individual citizen's conduct. . . . The moral anchor was replaced by a misconceived notion of democracy and freedom."

The Ministry in 1958 reinstated a required morals course at compulsory levels over strong opposition from the Japan Teachers Union. An estimated 70 percent of the course content was based on such democratic concepts as the value of the individual and community ethics, about 30 percent was based on authoritarian concepts, including the traditional philosophy of loyalty, patriotism, and obedience. Many teachers refused to teach it.

All elementary schools must now offer one 45-minute period per week of morals instruction in each grade. The opposition of the teachers, however, has forced a compromise in teaching this subject. The Ministry was able to set down a list of 36 standard moral precepts which had to be taught, including respect for human life, selfreliance, honesty, sincerity, etc., but use of a uniform morals textbook was not instituted.

The morals course was part of a complete revision of curriculum forced by the government in 1958 after years of agitation against the modern, liberal postwar curriculum. New courses and texts for each subject were written for elementary schools, effective in 1961; for junior-high schools, effective in 1962; and for senior-high schools, effective 1963-1965. The Ministry has made the new courses of study universal and mandatory—reversing the occupation policy of "suggested courses of study" from which teaching units could be built to meet local needs.

The courses of study have been printed in the Diet *Gazette,* equivalent to the *Congressional Record.* To insure compliance by the resistant teachers, compulsory in-service training has been organized. The Teachers Union has demonstrated and even called strikes against both the revision and the in-service courses.

CHANGES

The changes were for the purpose of toughening the curriculum, increasing the hours in mathematics, science, and national language, and insuring a prescribed coverage of Japanese history, and geography, as well as the morals course.

Minimum standards for achievement and specific time schedules in the elementary and junior-high schools have been set. Controversial subjects are to be avoided. Social studies, which encouraged questioning of the status quo, is to be reorganized and reduced to one hour a week. Content subjects, such as Japanese history and geography, will be given more attention. The purpose is to develop in pupils "a faculty for making moral judgments" as well as "love for one's homeland, its cultural heritage, and understanding of the progress of the nation and community."

Despite numerous government victories over the Teachers Union in forcing great centralization of

Ministry of Education control, and despite the interference of politics in education, permanent gains over pre-war practice have been made.

Reforms that have met the long-standing needs of an education-conscious nation, such as provision of greater equality of educational opportunity, have won wide popular support and have survived. Other notable achievements have been the extension of coeducation to all levels of schooling; increase in the number of years of compulsory education from six to nine; increase in, and better distribution of, national universities; and the introduction of part-time and correspondence education.

Significant changes have also occurred in school operation. Freedom has entered the classroom. The activity program is common in the elementary school. Children working on projects show intellectual curiosity, express themselves freely, are unimpressed with authority, and are studying and practicing techniques of democratic citizenship.

Though teachers are often involved in political conflict against the recentralizing moves of the Ministry, the vast majority are at the same time concerned with improving the educational program. Academic freedom, guaranteed by the Constitution, enables them to criticize the government, and they make use of it. The pressure group of the organized teachers is one of the most effective brakes against rightist reaction.

The democratic educational system of the reform period has gained general acceptance, and its major principles have been integrated into school practice, although there have been modifications to meet special cultural needs. Though conservative change is inevitable, it is fairly moderate. Pressure groups, such as teachers and intellectuals, as well as newspaper columnists of every persuasion, fight to preserve the major gains of the reform period. It would be much harder to go back to the old system now than it was to win acceptance for the initial post-war changes.

A noted editorial writer has said: "Japan, now placed on the tracks of democracy, will remain on the tracks even though its advance may be slow. . . . I have found that democracy, although very slowly, has taken root deeply in the minds of the people." ●

FIVE-day-week school is spreading to Europe. In East Germany, the five-day week has been introduced in a primary school in Bremen and is being tried out in a primary and secondary school in West Berlin. In Sweden, the maximum number of hours per week has been reduced to 35, even for older pupils, in order to prepare for a general transition to free Saturdays.

Some Questions Concerning

The Montessori System

BRITTA SCHILL

In Childhood Education

Britta Schill is a member of the staff, Social Pedagogical Seminary, Stockholm, Sweden. Reported from Childhood Education, *IXL (December, 1962), 711–73. By permission, Association for Childhood Education International, Washington 16, D.C.*

IT is easy to understand that the educational methods introduced by Marie Montessori early in this century aroused great interest and were regarded as revolutionary.

Montessori's theories of the sensitive periods in the development of the child were new at the time. They seem to correspond with what we now call the "needs" of children, different at various ages and stages of development. To Montessori, it was clear that these sensitive periods were to be taken into consideration when they appeared, just as we now try to meet the needs as they turn up and give the child an opportunity for learning when the urge is present.

Montessori's greatest contribution is her insistence on necessity for observing and caring for each individual child. Today this is taken as a matter of course; it was definitely not so when she began her work.

The apparatus Montessori constructed for mentally deficient children (and later used for normal children) has its value as a means of training the senses. However, one cannot agree with the strict rules for use of the apparatus. They are in contradiction to modern theories of child development. It is well known that young children manipulate all things within their reach, examine them, and experiment with them before the stage where they can use them adequately. If given time, sooner or later they learn from using them, experiencing the triumphant feeling of finding out by themselves. This is most essential to selfconfidence.

From the beginning, Montessori did not intend to start formal instruction of the three R's with preprimary children. She had the viewpoint that teaching of skill subjects should not be until age six or seven. But Montessori gave in to parental requests, and so it is that work with letters and numbers has become something which makes the Montessori schools different from regular nursery schools and kindergartens.

The important question is: What should be the aim of preprimary education? Should it be formal instruction in the three R's, stressing the intellectual side of personality as well as that of development?

Are there more important essentials to learn before starting primary school? What about the social side? Starting first grade involves being able to associate with one's age group, being able to cooperate, knowing something about the environment (people, places, things)—how the "here and now" world functions and how to behave in it. One cannot help wondering if the individualized work of the Montessori schools gives young children enough experience in this respect.

Today, all over the world, there is stress on the value of intellectual ability. But psychology and psychiatry have taught us about the vital importance of emotional well-being. What a child experiences during these years will be decisive for his future development as a personality. I cannot help asking if the strong emphasis of the intellectual training of the Montessori system is done at the cost of emotional well-being.

The more advanced material certainly is excellent for use in the first school years. But why, for example, should preprimary children learn mathematics so that they can do square roots and decimals at the age of six or seven?

Today, we are becoming more and more conscious of the necessity for healthy development which allows children to express their feelings in different ways, not only in words but also in free creative activities. As soon as children can handle water, sand, paint, and clay, they should have them. The materials should be used in accordance with the child's stage of development, without rules for using them. In the Montessori system there does not seem to be enough time or space for free creative activity with different materials which we consider essential for young children.

Montessori found that children love playing with real things, like those their mothers use. But it is also true that at certain ages young children love make-believe play, just as they all go through a stage of magic thinking. No doubt imagination does play an important role in the development of children. How could role-playing or acting, both important to ego-formation and the ability to identify with others, be carried out without the help of imagination? Why did Montessori try so hard to avoid everything with a touch of imagination?

Montessori is said to have considered good insight into child psychology essential for a teacher of young children. I agree. Therefore, the comparatively short preparation time of Montessori teachers is astonishing. Even if this training concentrates on her own psychology and pedagogics, there certainly is more that teachers of young children should know. With the enormous amount of knowledge we now have, even three years of preparation seems far too short. ●

What Can an Individual Teacher Do?

They Read—But Do They Comprehend?

ROMA GANS

In Grade Teacher

TEACHING a child to become a functional reader goes far beyond helping him to pronounce correctly each word he reads. The excitement over phonics might lead to an assumption that word-pronouncing ability is the only skill involved in reading. The fact that many adult readers, taught the "good-old-phonics way," can pronounce words correctly but comprehend so inadequately that they are duped by fraudulent advertisements and stymied by essential news items seems to be overlooked.

To become a reader, a child must learn to connect letters and combinations of letters with their appropriate sounds. This is phonics. However, a real reader unlocks the sounds so that he can recognize the words and understand their meanings. He uses phonics, cue letters to words, configuration of words, and other word-recognition techniques to get at the idea of the author.

The entire realm of comprehension has been slow in coming to the fore. From early days to the present, much emphasis was placed on "reading and reciting." Reciting was chiefly a "spit-back" affair, with the child giving back precisely what was read in response to the teacher's questions. A child who could read and pronounce words and phrases meaningless to him would never be recognized as a noncomprehending reader.

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We have taken great strides away from such ignorant teaching during the last several decades. Teachers, instruction techniques, materials, and tests have all had an effect in guiding and assessing children's progress in becoming comprehending readers. Today a child who can pronounce words but who fails to put these words into their appropriate meanings is identified as needing special help.

Comprehension is not a simple skill; it includes a number of skills. Some of them are related to the purpose for which a reader is reading certain materials at a specific time. For example: A six-year-old can read "Sally is having a birthday party. I am going." Is he able to pause and react to the accuracy? Is Sally having a party? Is he invited?

The first level of comprehension is understanding the items in the material and seeing their relationships. This phase is well taught today. Stories, information, and news items are talked over and checked through silent and oral methods. "Spit-back" is virtually extinct. Measures of this first level of comprehension indicate that our schools are doing a thorough job in teaching children to understand what they have read.

Unlocking the meaning in content is an important first step for all readers. Adults do it almost unconsciously with much of what they read. A child may find it necessary to slow down and "think" about what he is reading.

OTHER COMPREHENSION SKILLS

In more difficult reading, relationships may be implied or follow later—requiring a reader to keep items in mind and be able to link related items and see their sequence and connection. With increased knowledge and reading power, other comprehension skills develop. A child is able to go from one reference book to another, noting points of agreement and differences. He grows in ability to understand an article in light of his knowledge to date and to evaluate its authenticity, its relevance to the help he seeks, and its importance.

These more complex and difficult reactions to what is read is the type of functional reading power essential to all who grow up in our schools today. Unlike the ideas of some critics who imply that reading skills should and can be taught as a sequence of tiny separate items, reading is an involved process that cannot be fully developed in isolation from learning experiences. To be an able reader, a child must use his reading skills in facing his quests for ideas, fanciful and factual, as he meets them in everyday life.

Comprehension of materials that bear on a problem of deep interest includes more complex skills and goes far beyond the first level—that of identifying items and their relationships. Such comprehension, to be functional in meeting life-reading needs, cannot be developed solely through comprehension checks and exercises, nor can it be left to chance. It must be taught under teacher guidance as a part of the school's program.

WHAT IS REQUIRED

However, to face the responsibility of guiding children to become such competent readers demands more of a teacher than a new set of readers or the inclusion of a few added exercises. It requires a curriculum in which attention to continuing studies of questions and problems in such fields as science, social studies, and current events is prominently placed.

There is no simple suggestion for developing functional comprehension Many schools have faced obligations to today's children with curriculum study, followed by promising changes. Reading in such schools goes far beyond even that measured by comprehension tests.

What can *any* individual teacher do about teaching functional comprehension in a school where little or no help is given? The answer is: *very much.* Among the many ideas, the following may be both helpful and assuring.

A teacher who is a thoughtful, comprehending reader can share reactions to stories and articles with pupils. This can be done to stimulate youngsters to think "about and around" their reading, rather than telling them what they should think. Such comments as "I wonder if the author has really seen a volcano in action" or "This sentence didn't seem very clear to me" help children to go deeper into their reading.

The classroom atmosphere must encourage such thinking and discussing. A rush-rush tempo denies time to think—to comprehend. Short, hurried answers are essential at times, but there must be proper time for, and attention to, probing deeper.

Children can be helped to read more than the minimum in their textbooks. If schools and classroom libraries are inadequate (as many are), encourage children to share books from home and make liberal use of public libraries. From fourth grade on, children should become public-library members as a regular part of their reading program.

Individual youngsters and groups can be encouraged and helped to develop interests which they pursue as added studies, even if unrelated to the on-going program. They may need help in how to locate reference materials, how to use tables of contents and indexes, and how to use library facilities. As their work continues, they can be encouraged to make progress reports to the class—through which they learn how to organize materials and how to cite references and how to meet questions and comments.

Help given in study and reporting will extend growth in reference reading and give experience in added comprehension skills. All class members can profit through hearing others relate their study experiences, especially if the teacher highlights key points, such as, "Notice, Harry looked up the copyright dates of the two books he used in his report on airplanes, so he knows which statement of speed is more up-to-date."

Stimulating reports and discussions can be contagious, starting other pupils off on personal or small-group studies. Time for reports, if only once a week, will develop important skills.

To any teacher who realizes the importance of educating each child to become a thinking, mature reader, new ideas will keep cropping up. The effect is never-ending growth for the youngsters and the teacher. The end result will be a fuller understanding of genuine comprehension. ●

A Child and an Organ

FREDERICK BECKMAN

In Philadelphia Teachers Association News Letter

Frederick Beckman is Assistant Director, Division of Music, Philadelphia, Pennsylvania Public Schools. Reported from the Philadelphia Teachers Association News Letter, *LXI (December 1962), 6, 8, 11.*

IT'S quite a sensation, sitting there at the organ, with all the controls at your fingertips and toes—layers of black and white keys, and underneath, the long pedals that boom."

Philadelphia school children are experiencing this sensation. The organ program is an experimental program, part of the cultural offering of the Ford Foundation's Great Cities School Improvement Program for the culturally deprived.

The organ instruction program, inaugurated in 1961, has produced unexpected results in a new selfimage created by many young organists. Children studying the organ have felt a new sense of accomplishment, in their own and in other pupils' eyes. It has helped each performer gain status in his classroom, at his home, or among his friends. Frequently some of the children are waiting at the school entrance an hour before classes begin, hoping to gain extra minutes of practice.

Organ classes have been organized in three types: classroom organ, during which children are given keyboard experience as a part of their regular music period; elective organ, with classes scheduled during the school day for pupils selected by their ability and experience; and extracurricular organ, with classes meeting before and after school and during lunch for interested pupils, irrespective of talent and experience.

All three class types have met with success on the elementary level.

The program continues to expand. More than 2,500 Philadelphia school children are now receiving organ instruction.

In all sections of the city, boys and girls are experiencing the magic associated with the feel of the organ. They are boys and girls with different backgrounds, different interests, different abilities. Yet they all respond in the same way—they sense a new feeling of importance. This is because beauty is universal—not the exclusive property of the brilliant, the talented, the wealthy. All the children will not become professional organists. They all, however, will know the sensation of being 10 feet tall. ●

Organized by U.S. Government Employes Overseas

Foreign Service Dependents Schools

GEORGE W. MCCOWN

In School Life

THERE are now 200 schools in foreign nations about the world organized and operated by employes of U.S. Government agencies, such as the U.S. Information Agency, the Agency for International Development (AID), and U.S. embassies and legations, serving abroad.

The U.S. Government does not provide schools for the children of overseas civilian employes as it does for the children of members of the Armed Forces, though it does make tuition grants under certain conditions. The employes themselves organize and operate these schools for their children. The major purpose of the schools is to prepare children to enter schools in the States when they return. In many areas, these schools are also goodwill ambassadors.

The pattern of organization and administration is similar in most of the schools. A group of government employes at a foreign post decide to organize a school. They form a nonprofit organization, draw up a constitution, elect or appoint a school board, and apply for a charter from the host country.

The school board determines the grades to be taught, rents a building, buys or builds furniture and equipment, hires teachers—often employes' wives who have taught in the States—makes up a budget, sets a tuition fee, and applies to the Department of State for tuition grants for each pupil.

As the school expands, possibly by admitting children of U.S. businessmen in the area, other foreign nationals, and citizens of the host country (all of whom pay tuition), it becomes necessary to expand facilities. Expansion often means purchase or lease of land and lease or construction of buildings.

The schools range in size from one-room schools with eight to 10 elementary-grade pupils to schools with separate buildings and 100 full-time teachers for 1,800 students in all grades, K-12.

Small elementary schools usually follow the Calvert System of in-

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struction—supervised correspondence courses for a few pupils in grades 1 to 8. Larger elementary schools use the U.S. classroom system; most have a teacher for each grade or every two grades, depending on the number of pupils. Small high schools use correspondence courses under teacher supervision; larger high schools are similar to high schools in the States, though most offer only a college preparatory curriculum. Some of the best known schools are in Guatemala City, Teheran, Tokyo, and Pasay City (the Philippines). The largest—a complete school system—is the American School in Taiwan.

The American-Nicaraguan School at Managua will serve as an example. Founded in 1944 by U.S. citizens residing in the city, its initial enrolment was 26, all children of U.S. citizens. In April 1962, enrolment was 487, about one-third of the students being children of U.S. citizens. The school is controlled by a five-member board of three U.S. citizens and two Nicaraguans. It offers instruction from kindergarten through grade 12. Instruction is in English, though Spanish is taught in every grade above the first.

Many of the overseas dependents schools have increased in size many times. Starting with 10 to 25 pupils, they now have 100, 250, or more pupils with more expansion in sight.

Many of the schools lack adequate quarters, supplies, and equipment, including laboratories and libraries. Experienced teachers are not available in many places, and recruiting from the States is expensive. Many schools would be in trouble except for the help Congress has made available through the "Act for International Development of 1961."

The purpose of this act is to "promote the foreign policy, security, and general welfare of the United States by assisting peoples of the world in their efforts toward economic development and internal and external security, and for other purposes."

A section of the law authorizes the use of $1.5 million of the funds available under the act for use in "any fiscal year to provide assistance, on such terms and conditions as are deemed appropriate, to schools established, or to be established, outside the United States in providing for the education of dependents of personnel carrying out activities authorized by this Act and dependents of United States government personnel."

By including aid to the overseas dependents schools in the act, Congress recognized the importance of these schools to foreign service employes and to the foreign policy of the United States.

SURVEY OF NEEDS

In December 1961, AID, which is administering the Act, sent a questionnaire to the schools to determine their needs, both immediate and long range. By October 1962, 75 schools had sent in requests for grants totaling more than twice the amount of funds available.

The chief problem, so far, in processing requests is to get the proper supporting evidence of need and to determine which grants, or part of grants, should receive priority. Schools requesting aid must furnish information on background and history, legal status, land and physical facilities, faculty, curriculum, methods of financing, admission requirements, boarding facilities, and projected enrolments.

Replies to questionnaires indicate that schools need help with almost every element of a school. They are asking for help with revising and improving curriculums, selecting text and reference books, and planning buildings, as well as financial aid for building and equipping schools. They are also asking for advice on school administration and information on regional accrediting agencies.

Office of Education specialists, particularly those in the Bureau of International Education, have assisted AID in evaluating the requests.

The school at Managua, for example, has requested $200,884 to pay the salaries of more teachers and administrative employes; to buy equipment for commercial courses, the cafeteria, and the school office; and to build an auditorium and a gymnasium. The American School at Khartoum, Sudan, was granted $18,920 to help it add grade 9 to its grade 1 to 8 program. The American School of Tegucigalpa, Honduras, was granted funds for school supplies and equipment. The school at Alemya, Ethiopia, founded by employes of an Oklahoma State University contract team, was granted $10,000 for constructing a one-room, one-teacher school.

AID is now considering a request for a secondary boarding school to serve the children of U.S. Government employes in six East African countries—Ethiopia, Kenya, Somali, Sudan, Tanganyika, and Uganda. A survey team, operating from Addis Ababa, will evaluate the request firsthand. It will look into the need for a school, possible location, whom the school should enrol, the cost of establishing and operating a school, and related matters. The Office of Education may have representatives on the team. ●

● In Rhodesia, a child can enter school if he can touch the lobe of his left ear with his right hand. That makes as much sense as saying he can enter because he was six years old by a certain date.—*Dwight W. Allen.*

● The teacher did not know Nick had traveled around a great deal when she asked him where he was born. "Oh," he replied airily, "I was born all over the place."—*NEA Journal.*

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

Some Will, Some Won't.—Nine years after the Supreme Court declared separate schools inherently unequal, the Department of Health, Education, and Welfare has decided to withdraw some federal funds from Alabama, Georgia, and South Carolina school districts unwilling to desegregate. Fifteen districts in Florida and Texas agreed to integrate rather than lose their federal grants.

Only one of HEW's many grant-in-aid programs is involved—the provision of operating funds under Public Law 874 to districts enrolling a considerable number of children whose parents work for Uncle Sam. Only 2,700 elementary-school children are involved, those whose parents live on federal property at Ft. McClellan and Ft. Rucker, Alabama; Ft. Stewart and Robbins Air Force Base, Georgia; and Ft. Jackson and Myrtle Air Force Base, S.C.

For these children, the HEW Department is now constructing $2 million worth of temporary classroom facilities. Next fall, the Defense Department will operate integrated classes for these "on-base" children, and the neighboring school districts will forfeit the funds they currently receive. Nothing has been said about the new classrooms these districts have built in years past with federal construction grants under Public Law 815, nor their older brothers and sisters in high school, nor the thousands of children whose parents work but do not live at these federal installations.

The language of the two laws differs in regard to the "on-base" and "off-base" children. (Not the least depressing attribute of the "federally impacted areas" legislation is its singularly infelicitous terminology.) With respect to the "on-base" children, the HEW Secretary is empowered to provide education if that available locally is not "suitable." Whether he has the same power with respect to other "federally connected" children is uncertain, and the courts have been asked to settle the question.

One suit—against Prince George County, Va., in behalf of children from Ft. Lee—begins next month. The Justice Department has also filed suits against:

- —Madison County, Ala. (the Redstone Arsenal at Huntsville.)
- —Mobile County, Ala. (Brookley Air Force Base at Mobile.)
- —Harrison County, Miss. (Keesler Air Force Base between Biloxi and Gulfport.)
- —Bossier Parish, La. (Barksdale Air Force Base).

The suits assert that racial segregation of service children in the schools of these counties violates the 14th Amendment and harms the morale of servicemen and civilian employes. "Let me emphasize now, as I did at the time of the filing of the Prince George case," Attorney General Robert F. Kennedy has said, "that it makes no sense that we should ask military personnel to make sacrifices and to serve away from home and yet see their children treated as inferiors by local segregation requirements. It is even more incongruous since these school systems are maintained by public funds, contributed in part by these same service personnel."

It is almost impossible for these suits to end in a definite ruling before June 30, when Public Laws 815 and 874 are scheduled to expire. Before that date, resolutely looking away from the two out of three districts that do not qualify for "impacted area" funds, Congress will probably vote to continue the programs for at least one more year.

The Big Bill.—Extension of Public Laws 815 and 874 for another year, as proposed by Rep. James G. O'Hara (D-Mich.), chairman of a House Education and Labor Subcommittee that looked into the question, removes one of the many provisions of the Administration's omnibus "National Education Improvement Act of 1963."

The other education-aid programs proposed by the President are still under consideration by the House and Senate Education Committees. Senate hearings are now under way. The Democrats on the House Committee voted 16–3 to keep the bill together but to divide its detailed consideration among Subcommittees.

Thus the Administration's proposals for vocational and adult basic education are now before the General Subcommittee on Education, of which Rep. Carl Perkins (D-Ky.) is chairman. Other members are Reps. John Brademas (D-Ind), Ralph J. Scott (D-N.C.), Hugh L. Carey (D-N.Y.), Thomas P. Gill (D-Hawaii), George E. Brown, Jr. (D-Calif.), Charles E. Goodell (R-N.Y.), Albert M. Quie (R-Minn.), Robert P. Griffin (R-Mich.), and John M. Ashbrook (R-Ohio).

The school-construction, teachers' salaries, and library portions of the omnibus bill are the province of the Select Subcommittee on Education, of which Rep. John H. Dent (D-Pa.) is chairman. His Subcommittee also includes Reps. Augustus F. Hawkins (D-Calif.), Carlton R. Sickles (D-Md.), Sam Gibbons (D-Fla.), George E. Brown, Jr. (D-Calif.), Dave Martin (R-Neb.), Donald C. Bruce (R-Ind.), M. G. Gene Snyder (R-Ky.), and Paul Findley (R-Ill.).

The remainder of the omnibus bill is under consideration by the Special Subcommittee on Education, of which Rep. Edith Green (D-Ore.) is chairman. Her Committee includes Reps. John Brademas (D-Ind.), Carlton R. Sickles

(D-Md.), Sam Gibbons (D-Fla.), Albert H. Quie (R-Minn.), Alphonzo Bell (R-Calif.), and Robert Taft, Jr. (R-Ohio).

Rep. Adam Clayton Powell (D-N.Y.), chairman of the full Committee, and Rep. Peter Freylinghuysen (R-N.J.), its ranking minority member, are ex-officio members of all subcommittees. The nomenclature of the subcommittees is devoid of significance; they could as well be numbered, which is the practice followed by some other Congressional Committees.

What Now?— The fate of the bill is still uncertain. Congressmen will soon be home for their traditional Easter recess, when most will attempt to gage their constituents' desires. A clamor for the Administration's bill is not likely to arise, since many nominal supporters have misgivings which arise from religious, racial, or fiscal reasons, or a combination thereof. When two-thirds of the Americans sampled by Dr. Gallup's interviewers say they are for federal aid to education, they mean federal aid on their own terms, not the other fellow's.

Organized education is still presenting a united front in Washington. The NEA carefully explains —but *sotto voce*—that it favors the *principle* of an omnibus bill, though it does not necessarily favor every specific provision proposed by the Administration. The proposals that would aid church-related colleges are anathema to a considerable and vocal segment of NEA's membership, which adopted a resolution at last summer's convention calling for public funds for public education only.

The ACE, on the other hand, continues to champion the right of private colleges, including those operated by church groups, to share in federal funds, on the ground that this sort of aid is constitutional. It is a well-kept secret here, but steps are now being taken to challenge in the courts this long-held and little-questioned assumption. Such a move, even though ultimately unsuccessful, could easily upset the current facade of unanimity concerning the Administration's omnibus bill.

The provisions most likely to win Congressional approval, in addition to extension of Public Laws 815 and 874, are extension and improvement of NDEA, expansion and modernization of vocational education, and continuation and expansion of the Library Services Act. To enact more than this, the Administration would have to give its education legislation a much higher priority than it now enjoys in a Congressional session dominated by tax legislation.

President's Views.—There is some evidence that President Kennedy and/or his advisors are revising their opinions about education. At a banquet celebrating the 50th anniversary of the founding of the Labor Department, when Mr. Kennedy discussed his proposals for retraining workers and aiding dropouts, he said he couldn't understand "why they're considered the waste in the budget while expenditures for defense are considered the untouchables in the budget."

Until recently, the needs of space, defense, and nuclear energy programs have been considered paramount when federal resources have been allocated for education, research, or development. These have been considered "first things" which would find more favor, anyway, among Congressmen than research into civilian problems or fellowships for liberal-arts graduates. We have also been told that space research, for example, will eventually yield benefits to more mundane technologies.

But now the President has told Congress: "We have paid a price by sharply limiting the scarce scientific and engineering (resources) available to the civilian sectors of the American economy." He has, therefore, proposed for the Department of Commerce a new program of research and development for nonmilitary industries "to redress the balance." Credit for this change in attitude must be given to the White House Office of Science and Technology, headed by the President's chief scientific advisor, Jerome B. Wiesener.

Things to Come.—Education has, to be sure, been the locus of a modest research and development boom of its own. NDEA has provided nearly $10 million for support of 169 research projects analyzing educational implications of new communications devices, while more than $4,000,000 has been spent to familiarize educators with the new teaching techniques such equipment makes possible. The USOE's roadshow of teaching machines and programed instruction, which closes its nationwide tour in Denver this month, is one praiseworthy attempt, financed by NDEA, to narrow the gap between development of new methods and their adoption in the classroom.

Another effort was the "multi-media report on a national study of the impact of present and predicted developments in communications technology on education" which inaugurated the USOE's New Media Demonstration Center, a conference room equipped with just about every present audio-visual device.

For an hour and a half, James D. Finn, University of Southern California, and Donald P. Ely, Syracuse University, both representing the NEA's Technological Development Project, were alternately spotlighted as they explained—with the aid of some 300 slides, film clips, tape recordings, and live television pickups—latest developments in equipment, applications of computers to instruction, complex information storage, retrieval, and display systems, and basic scientific developments which may affect educational communications in the future.

The Cost of Education

THE 1962–63 bill for U.S. public elementary and secondary schools is estimated at $19.5 billion, an all-time high, according to NEA's Research Division. This total includes teachers' salaries and all other operating costs, capital outlay, and interest on debt.

The Division points out that, at current rates, the public schools are providing education at a rate of 45 cents an hour per enrolled pupil—10 percent less than the going rate for teen-aged baby sitters.

In another report on the cost of education, John K. Norton, emeritus professor of education at Teachers College, Columbia University, reveals that the unit cost of education (one child, one day, expressed in constant dollars) has declined since 1900. It cost $1.48 to send a child to public school in 1900, and in 1958, the cost was three cents less.

Principal Internship

A $330,000 grant from the Fund for the Advancement of Education for an experimental internship program for potential high-school principals was announced at the annual convention of the National Association of Secondary-School Principals in February.

Under the pilot plan, candidates will spend one or two years in full-time employment in a school and will work with principals in directing experimental programs, according to Eugene S. Thomas, NASSP president.

Seven universities and 14 secondary schools will start the project with a workshop for interns this summer. Lloyd Michael, principal of Evanston Township High School, Evanston, Ill., will head the advisory committee for the project.

A First for Des Moines

THE nation's first full-scale electric computer for use in a high-school data-processing education program will be installed this summer at Des Moines Technical High School, Ia. Valued at more than a quarter million dollars, it will form the heart of a new course designed to develop computer operators from among the city's high-school business students.

In addition to classroom use, the machine will be put to work on school administrative tasks, including student scheduling, business office applications, guidance testing, and payroll computation for the district's more than 3,000 employes.

Half of the new computer's cost was paid by the federal government under the National Defense Education Act, and another quarter of the cost was borne by the state.

NEA's Newest Department

THE Department of Foreign Languages, the newest department of the National Education Association, now has an interim executive secretary. He is Frederick D. Eddy, professor of French at Georgetown University, Washington, D.C.

The new department was established by the NEA's Representative Assembly in July 1961, and since that date Lawrence G. Derthick, assistant executive secretary for educational services, has acted as headquarters contact until Dr. Eddy's appointment in February.

Driver-Training Aid

AN electronic teaching machine that fits in an automobile glove compartment may help revolutionize driver-training programs, according to the University of Michigan, where the machine was developed.

Now undergoing tests, the device counts the number of actions a driver makes in operating the steering wheel, accelerator, and brake. In addition, it determines the amount of speed change, total trip time, and the total time the car is in motion.

Scholarship Aid Improvement

"MAJOR improvements are required in the ways talented young persons are identified and selected for scholarship aid." That statement comes from John M. Stalnaker, president of the National Merit Scholarship Corporation (NMSC), which in 1962 appointed 1041 Merit Scholars, the largest number in the seven-year history of the Merit Program.

Mr. Stalnaker, in his corporation report for 1962, states, "No one type of evaluation—no single, easily applied formula—will reveal all types of intellectually promising students. We must recognize the existence of diversity and adapt to it."

Mr. Stalnaker says that tests of scholastic aptitude and educational development are adequate for the tasks they undertake, but what is needed is development of measures of other qualities and characteristics that affect achievement. Among these he mentioned independence of thought, ambition, work habits, originality, energy level, integrity, social conscience, leadership, and ability to work with others.

He appealed for more research on the talented and more experimentation in the selection of scholarship recipients by colleges. The Merit Program, Mr. Stalnaker says, will accelerate its research projects dealing with talented students and expand its experimental programs as one result of a $14.5 million Ford Foundation grant made to the NMSC in 1962.

Transition Studies

THE U.S. Office of Education has signed contracts with two universities to determine what characteristics of high-school courses in science and English will serve to improve the performance of students in these subjects when they get to college.

The University of Illinois has received the contract for the study of high-school programs insuring a student's success in College English. The study, to be concluded in 1965, will be directed by James R. Squire.

Western Michigan University, Kalamazoo, will make the similar study in science. This study, to be completed in 1968, will be directed by George G. Mallinson.

Summer Sessions Cut

THE Los Angeles board of education, faced with the prospect of limited funds for operating schools, has voted to cancel summer-school sessions at the elementary and junior-high school levels for this coming year.

Last summer, enrolment in 105 elementary schools was more than 26,000, and in the junior-high program, covering 17 schools, it was more than 23,000.

This summer's program will be confined to 29 senior high schools, seven junior colleges, and eight adult schools.

Updating Counselors

THE U.S. Chamber of Commerce has undertaken a campaign to update guidance counselors on job opportunities and requirements. It has asked each of the 3,200 local chambers of commerce to organize a series of workshops between now and the end of the school year in cooperation with the schools so that counselors may be informed of future manpower needs. The American Personnel and Guidance Association has endorsed the effort.

California Requirements

REVISED requirements for teaching credentials will go into effect in July in California for prospective teachers who have not completed two years of college work. The new standards emphasize more academic work and less in education methods, with methods courses and practice teaching concentrated in the fifth year of the college program. An academic major and minor in a subject other than education will be required, and there are various requirements for practice teaching under supervision.

DATES OF THE MONTH:

Mar. 30-April 3, Department of Elementary School Principals, NEA, Oklahoma City, Okla.

April 9-13, American Industrial Arts Association, Indianapolis, Ind.

April 16-19, National Catholic Education Association, St. Louis, Mo.

April 16-20, Council for Exceptional Children, Philadelphia, Pa.

April 21-26, Association for Childhood Education International, Miami Beach, Fla.

April 21-27, National Library Week.

April 22-26, Department of Audiovisual Instruction, NEA, Denver, Colo.

April 24-27, National Association for Gifted Children, Terre Haute, Ind.

April 27-30, National School Boards Association, Denver, Colo.

DATES OF THE COMING MONTHS:

May 3-7, American Association for Health, Physical Education, and Recreation, Minneapolis, Minn.

May 19-22, National Congress of Parents and Teachers, Miami Beach, Fla.

June 25-28, Commission on Teacher Education and Professional Standards, Columbus, Ohio.

June 30-July 5, National Education Association, Detroit, Mich.

New Insights and the Curriculum. Alexander Frazier *et al.* Washington, D.C.: Association for Supervision and Curriculum Development, 1963. Pp. viii + 328. $5.00.

This is the 1963 yearbook for the Association for Supervision and Curriculum Development (ASCD), a department of the NEA. The chairman and editor of the yearbook committee, Alexander Frazier, prepared an introductory chapter and a foreword to each of the sections, to provide a framework for the 14 separate papers.

The yearbook is organized into seven basic chapters. Each chapter opens with a paper by an outstanding scholar who has responded to a request to help develop new insights and to push our thinking beyond the traditional frontiers. Each of these presentations is paired with a paper in which a curriculum specialist or other educator examines the professional implications.

The seven basic sections are concerned with new insights, and the implications they hold, on the topics of: Potentiality, Its Definition and Development; Knowledge, New Concepts and Possibilities; Selfmanagement, with papers on self-management capacities in children; Human Relationships; Across Cultures; Citizenship; and Creativity.

The Social Studies and the Social Sciences. Bernard Berelson, *et al.* New York: Harcourt, Brace, & World, Inc., 1962. Pp. xii + 303. $2.40.

" . . . the need for detailed reconsideration of the social studies curriculum in the secondary school appears to be so clear that it hardly requires extended argument."

Bernard Berelson makes this comment in introducing a collection of papers from scholars in the fields comprising the social studies.

The papers, on history, geography, political science, sociology, economics, psychology, cultural anthropology, and Asian studies, are not presented as manuals or course outlines. Berelson describes them as " . . . informed answers, by representative and qualified scholars, to the question: What ought a high-school graduate know about my field?"

The volume is sponsored by the American Council of Learned Societies and the National Council for the Social Studies. In calling attention to the absence of a detailed national review of what the social-studies curriculum ought to be, Berelson states that "this volume is perhaps the closest approximation, and it is intended only to open the discussion, not close it."

Effective Secondary School Discipline. Knute Larson and Melvin R. Karpas. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963. Pp. xviii + 206. $4.95.

In describing the steps and methods two educators employed to control students in a Rhode Island school which had its full share of disciplinary problems, this book becomes a commentary on the behavior of youths in our schools today. The content is based on a framework of precise practical suggestions for establishing and maintaining effective discipline.

It presents an overview of forces bearing on youth, the schools, and the community. The authors note that school discipline is tied closely to the community, stating: "Secondary-school students reflect the behavior patterns of the entire community. Youngsters tend to be like their environment and any effort to improve their behavior must involve an improvement in the total environment."

This premise is demonstrated in a section on managing large crowds at athletic events, in which suggestions are made concerning coaches, game officials, police, and spectators. This technique of discussing elements of a situation and presenting suggestions for controlling behavior and maintaining the school's function is applied to classroom teaching, administration, and curriculum.

Knute Larson is principal of Cranston High School East, Rhode Island; Melvin Karpas is professor of educational sociology, Chicago Teachers College South.

New Trends in Reading Instruction. Shelley Umans. New York: Bureau of Publications, Teachers College, Columbia University, 1963. Pp. x + 145. $4.25.

The author states that the purpose of this book is to "help educators to introduce newer approaches to reading organizations, always, however, with the reservation that little is new, that what works for some may not work for others, that a generation may pass before a program can truly be evaluated, and that the subject of our program—the learner—possesses more variables than have ever been identified."

The content reviews the newest trends in reading instruction—flexible grouping, programed instruction, use of films, filmstrips, TV—to introduce and explain the innovations and to suggest methods whereby school personnel might go about applying such techniques. Many sample teaching materials are included.

Primarily intended for reading consultants and supervisors and classroom teachers, the book is also intended to serve administrators who are exploring new ways to teach reading.

OTHER MATERIALS RECEIVED: ELEMENTARY

Understanding Science. (Third Edition.) William H. Crouse. New York: Whittlesey House, McGraw-Hill Book Co., Inc., 1963. Pp. 224. $3.95. Includes the latest information on such areas as fusion, space travel, computers.

Let's Find Out about Spring. Let's Find Out about Summer. Let's Find Out about Fall. Let's Find Out about Winter. Martha and Charles Shapp. New York: Franklin Watts, Inc., 1963. Pp. 42 each. $1.88 each. Each book has a vocabulary of not more than 100 words.

Learn to Listen, Speak, and Write, Book 3/1; Teachers Edition. Marion Monroe, Ralph G. Nichols, W. Cabell Greet. Chicago: Scott, Foresman and Company, 1963. Pp. 240. $1.68. **My Practice Pad.** Pp. 112. $.48. Coordinated with the New Basic Readers in the Curriculum Foundation Series.

Theodore Roosevelt and Responsible Citizenship; a Teacher's Manual of Suggested Class Activities. New York: The Theodore Roosevelt Association. Pp. 42. $.50, discounts in quantity. Designed for use in elementary-school social-studies classes.

Things You've Wondered About; The Human Body. Jack Myers. Columbus, Ohio: Highlights for Children, 1963. Pp. 32. $.75. One of the Highlights Handbook series.

Now That You Are 5. Charlotte Steiner. **Now That You Are 6.** Dorothy Marina. **Now That You Are 7.** Eleanor Clymer. **Now That You Are 8.** Sydney Taylor. **Now That You Are 9.** Iris Vinton. **Now That You Are 10.** Frieda Friedman. New York: Association Press, 1963. Pp. 56 each. $1.50 each. Stories about growing up, developed with the Child Study Association.

SECONDARY

The United States in Literature. Walter Blair, Paul Farmer, Theodore Hornberger, and Margaret Wasson. Chicago: Scott, Foresman and Company, 1963. Pp. 820. $4.84. For Grade 11.

This Is America's Story. (Revised Edition.) Howard B. Wilder, Robert P. Ludlum, and Harriett McCune Brown. Boston: Houghton Mifflin Company, 1963. Pp. xii + 720 + A 74. $5.96. A well-illustrated history.

Love and the Facts of Life. Evelyn Millis Duvall, New York: Association Press, 1963. Pp. 352. $4.95. A new book replacing Duvall's **Facts of Life and Love for Teen-Agers.**

Conquest. David Alman. New York: Doubleday & Company, Inc., 1963. Pp. 179. $4.95. A book about scientists, their inquiries and achievements.

Living in Our Communities; Civics for Young Americans. (Fourth Edition.) Edward A. Krug, I. James Quillen and John M. Bernd. Chicago: Scott, Foresman and Company, 1963. Pp. 432. $4.84.

Source Material for Secondary School Teachers of Foreign Languages. Esther M. Eaton, Mary E. Hayes, and Lynne L. Norton. U.S. Office of Education Circular No. 690 (OE-27001B). Pp. 24. Available from U.S. Government Printing Office, Washington 25, D.C. $.25.

A Teachers Guide to Economics in the Business Education Curriculum. New York: Joint Council on Economic Education, 1963. Pp. 104. $1.25.

The Citizen and His Government; Rights and Responsibilities. Robert Rienow. Boston: Houghton Mifflin Company, 1963. Pp. x + 347 + A 34. $3.96.

College

Never Too Late for College; The Brooklyn Degree Program for Adults. Bernard H. Stern. Chicago: Center for the Study of Liberal Education for Adults, 1963. Pp. vii + 40. $1.00.

Statistics of Land-Grant Colleges and Universities. George Lind. U.S. Office of Education Circular No. 689 (OE-50002-60). Pp. vii + 112. Available from U.S. Government Printing Office, Washington 25, D.C. $.70.

The College, the University, and the Foreign Student. Francis J. Colligan, *et al.* New York: Committee on the Foreign Student in American Colleges and Universities. Pp. iii + 26. Copies free from the Committee, 500 Riverside Drive, New York 27, N.Y.

Programed Instruction

Programed Learning: A Bibliography of Programs and Presentation Devices. (Second Edition.) Carl H. Hendershot. Pp. vi + 38. Available from Carl Hendershot, Delta College, University Center, Mich. $2.00.

Classification of Plants. Rochester, N.Y.: Graphlex, Inc., 1963. A programed teaching unit of 68 frames. $1.00 with teachers manual.

Programmed English. M. W. Sullivan. New York: The Macmillan Company, 1963. Includes a hardbound, reusable programed text, a teacher's manual, and a separate booklet of tests. For use in grades 7–12 and for remedial use in college.

A Guide to Programmed Instruction. Jerome P. Lysaught and Clarence M. Williams. New York: John Wiley & Sons, Inc., 1963. Pp. xi + 180. $3.95.

General

Credo for American Public Education. Laurence S. Flau. Minneapolis, Minn.: Burgess Publishing Company, 1962. Pp. vii + 146. $3.85. Included are separate credos for teachers, principals, superintendents, school board members, and community and schools.

The Fraternal Society. Richard and Hephzibah Hauser. New York: Random House, 1963. Pp. 221. $4.95. Discusses present conditions that offer an opportunity for society to emerge from the pattern of paternalistic relationships to become truly fraternal.

Keys to Success in School. Leslie J. Nason. Washington, D. C.: Public Affairs Press, 1963. Pp. vi + 129. $3.25. Designed to help pupils get better grades.

Good Reading for Poor Readers. (Revised Edition.) George D. Spache. Champaign, Ill.: Garrard Publishing Company, 1962. Pp. iv + 203. $3.00.

Current Expenditures Per Pupil in Large Public School Systems. Gerald Kahn. U.S. Office of Education Circular No. 677 (OE-22019-60). Pp. 27. Available from U.S. Government Printing Office, Washington 25, D.C. $.25.

Using Tearsheets. Roy A. Frye. Austin, Tex.: University of Texas Visual Instruction Bureau, 1963. Pp. 56. $2.00. One of the Bridges for Ideas series.

Comments from our Readers

Dear Sir:

When reading the January issue of THE EDUCATION DIGEST, I noticed the article pertaining to in-service training. If I understood correctly, it was suggested that much in-service training could be done during the faculty meetings and that teachers would probably look forward to attending such meetings rather than consider them a waste of time, as some do.

Perhaps it may interest you to know that our faculty meetings have been conducted in this manner for the past two school years. This year we have found the meetings exceptionally helpful, and each teacher eagerly looks forward to the coming faculty meetings.

The topics chosen were: "Discipline," "Music in the Elementary School," "Art in the Elementary Grades," "Comprehension in Reading," and "Methods in Social Studies." These topics were presented in various ways, such as panel discussions, teacher demonstrations, lectures, as well as an actual unrehearsed class procedure via tape recorder. The meetings sometimes last an hour and a half, and no one appears bored.

If more faculty members would cooperate with the administrators, the school systems would undoubtedly become more effective, and the principals would feel free to approach in-service training during faculty meetings. This cannot take place, however, without faculty cooperation. We feel that "in unity, there *is* strength."

Sister M. Renatta, C.S.F.N.
Seventh Grade Teacher,
St. Luke School, Irving, Texas.

Dear Sir:

Normally, I am not much of a believer in "digests," thinking that if something is worth the bother to read, it should be read in full. And, if the digest is done carelessly, then it can misrepresent the purpose and necessary detail of the original article. I can see the need for something to help those "that run . . . that they may read," and to call attention more particularly to material of unusual worth to lead us on to looking up the original. But in the average school district—unless you are near a university educational library—not half of the good things that are published can be found or regularly examined.

You see, that is what I am getting at: your EDUCATION DIGEST does just these things for us. I am "sold." You have a very fine balance of subject matter and are not afraid to print debatable material. I liked the recent inclusions of foreign essays. And on two articles, where I had a chance to compare your digest with the original, I found you and your staff had done a very fair job in a difficult work (shortening longer and serious work). Keep it up.

Fred Fertig,
Las Pasas Pk.,
Camarillo, Calif.

Dear Sir:

I read with interest the article in the current issue of THE EDUCATION DIGEST, "Co-Authors of the World, Unite!" It may be that there is hope for the forgotten umpteenth co-author, at least from this quarter. I tend to enter every author listed, on the chance that Staff Member X may have been a longtime friend of Co-Author 3, and that Staff Member Y may be on a first name basis with Co-Author 5, whereas not many of them may know the senior author except as a name.

It may be that this is the situation in other special libraries, and that all of us in the special library field should unite, and remember with a card in the catalog, the forgotten co-author.

Jean E. Dulaff,
Librarian,
National Committee on Employment
of Youth, New York 16, N.Y.

2 JUL 196

Your School Board Members Need Educating, Too!

As a subscriber to THE EDUCATION DIGEST, you know its value in keeping you up-to-date with the trends and developments in education. But your school board also needs to be kept well informed on all educational matters. More and more administrators are discovering the value in having their board members receive THE EDUCATION DIGEST each month.

Here are a few excerpts from recent letters from school administrators:

FROM WISCONSIN

"At our Board of Education meeting of November 27th, the Board approved obtaining subscriptions to THE EDUCATION DIGEST. We would be interested in having seven subscriptions . . ."

FROM NEW YORK

"We are contemplating providing annual subscriptions for the Board of Education, school principals, and various other administrators in the District. These individuals will number about 13 . . ."

FROM MICHIGAN

"In a recent School Board meeting, six members of our Board indicated that they would like to receive copies of your magazine. The names and addresses are as follows . . ."

Since School Board members' time is limited, too, THE EDUCATION DIGEST is the ideal way for them to keep abreast of current educational ideas and problems. They will have a better understanding of your problems and the educational needs of your community.

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The Education Digest

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Volume XXVIII MAY 1963 Number 9

On the Problem of Book Censorship

A Program of Action for the Right to Read

In The Students' Right to Read

Reported from The Students' Right to Read, *a pamphlet prepared by the Committee on the Right to Read of the National Council of Teachers of English, published by the Council, 508 South Sixth Street, Champaign, Illinois, 1962, 5–6, 13–19.*

ACROSS America today, increasing pressures are exerted on schools to restrict the access of important and worthwhile books to students. In many communities, attempts have been made to remove literary works from classrooms and school libraries.

Modern writers, praised by recognized critics and well established in the curriculum, are suddenly charged with seditious sentiment or licentious intent. In familiar classics, overt pornography is "discovered." A partial roster of authors whose works are sometimes considered unsuitable for school use includes such distinguished literary figures of the Western world, as: Plato, Geoffrey Chaucer, William Shakespeare, Thomas Mann, Walter Van Tilburg Clark, Nathaniel Hawthorne, John Steinbeck, Ernest Hemingway, William Faulkner, Henry David Thoreau, J. D. Salinger, Archibald MacLeish, Mark Twain, Walt Whitman, Aldous Huxley, and Thomas Wolfe.

The immediate results of such attacks are varied. At times, school boards and administrators have defended the teachers, their use of materials under attack, and the students' right of access to the materials. At other times, however, special committees have been appointed to cull out "twentieth century trash." Teachers have been summarily reprimanded for assigning certain major literary works even to selected mature students. Some teachers have been forced to take action in the courts to retain their positions.

Probably even more important are the long range results. Merely from fear of such attacks, schools have removed enduring books from libraries and classrooms. Many students continue their "education" in a climate hostile to free inquiry.

Clearly, book censorship threatens to become a widespread problem for schools. Teachers, librarians, and administrators can best serve students and the profession today if they prepare now to face outside pressures sensibly, demonstrating a willingness to consider the merits of any complaint and the courage to defend with intelligence and vigor a sound program in literature. The following two-step program is recommended to protect the students' right to read:

TWO-STEP PROGRAM

Establishment of a committee of teachers to consider book selection and to screen outside complaints; and a vigorous campaign to establish a community climate in which informed local citizens may be enlisted to support the freedom to read.

Although one may defend without reservation the freedom to read as the hallmark of a free society, there is no substitute for informed and qualified book selection. The English teacher is better qualified to choose books for his classroom than a person not prepared in the field. Nevertheless, the administrator has certain legal and professional responsibilities, and he must keep informed about the criterions and procedures used in selection as well as the books that are chosen.

In every school, the English department should frame a clear statement that explains why literature is taught, by what standards it is chosen, and what reputable and unbiased selection aids are used as guides. If selection standards used in choosing books for suggested reading lists differ from those used for basic texts used by all students, such differences should be clarified.

Operating within such a policy, the English department should:

Ask each English teacher to present his list of choices to a meeting of the department or to *ad hoc* meetings of qualified teachers and librarians; file with administrators the list approved by teachers; and give the teacher a chance to explain his choice of any book questioned.

Such a procedure gives each teacher the right to expect support from fellow teachers and administrators when someone later objects to a book.

There are legal issues—apart from the moral and professional issues—involved in censorship. However, across the nation, no one general legal principle applies. As a part of sensible preparation for handling attacks on books, each school should ascertain what laws do apply to it.

As a part of community preparation, and to handle complaints about books, every school should have a committee of teachers organized to inform the community on book choices, to enlist support from citizens, and to consider any complaints against books.

No community is too small to have a group of enlightened people who have gravitated together because of mutual interests. If they make their position felt through letters, telephone calls, and personal visits in defense of a besieged book, they may well cancel the protests and impress the authorities who have the power to censor.

Probably no book has ever been printed to which someone could not object. Despite the care taken in selection, and the qualifications of the persons selecting, occasional objections to a selection will undoubtedly arise.

Some attacks are made by persons frankly hostile to free inquiry and open discussion; others are made by misinformed or misguided persons who, acting on emotion or rumor, simply do not understand how books are used; still others are made by well-intentioned, conscientious persons who fear that harm will come to a segment of the population if a certain book is read.

Occasionally, of course, teachers lacking judgment or inadequately prepared in literature are permitted to choose and to teach books. Complaints against selection by such teachers may indeed be reasonable. In no sense should a committee of English teachers blindly defend the use of substandard, unliterary materials or the presentation to children of books suitable only for mature readers.

Too many schools give in to belligerent threats of community sanctions and vague references to the backing of powerful forces. Without due process, without a complaint being signed, students are denied the right to read and many parents are the victims of a few.

HANDLING A COMPLAINT

The following are recommendations for handling a complaint:

If received by telephone, listen courteously, invite the filing of the complaint in writing, but make no commitments or threats.

If received by letter, acknowledge the letter promptly and politely.

In either case, offer to send the complainant a prepared questionnaire so that he may submit a formal statement to the book selection committee. The questionnaire should provide for specific identification of the book by title and author, specific objections about definite passages, whether the complainant has read the book, is he aware of the literary judgment on the book, alternate literary suggestions, whether the citizen represents himself or an organization.

At first, except for acknowledgement and explanation of established procedures, do nothing. The success of much censorship of this sort depends on frightening an unprepared school into an unwise course of action.

A standardized procedure will take the sting from the first outburst of criticism. When the responsible objector learns the channels and procedures for his complaint, he is satisfied that he will be properly heard. The idle troublemaker may well be discouraged from taking action.

In addition, the questionnaire form will do the following: Formalize and make the complaint official; indicate specifically the book in question; identify the complainant; reveal the size of his backing; require him to clarify his thinking about the book to make an intelligent statement on the specific objection; cause him to evaluate the book, especially for other groups beyond the one he has immediately in mind; establish to what extent he is familiar with the book; give him opportunity to recognize the criticism and intent of the book or to realize his failure to understand it; and give him alternative actions to be taken on the book, such as having it withdrawn from instruction to his children.

The committee of teachers to review complaints should be available at short notice to consider a citizen's request for reconsideration of a book and to call in the complainant for conference. The committee should reevaluate the book in advance of the conference, and the group should be prepared to explain its subsequent findings. If the committee decides that the book should be available to the students but the complainant insists on withdrawal, the committee should not hesitate to take its case to the newspaper and other local news channels. The freedom of the press, a principle dear to most publishers, is a healthy ally to freedom to read.

Teachers and administrators in the system should recognize that responsibility for selecting the book lies with the teacher group concerned and should cooperate fully with the reevaluation committee, refraining from discussion of the issue with the complainant, any community group, or the press. Authority for handling the situation should remain ultimately with the administration, which will act on the teachers' recommendations.

A courteous and dispassionate approach is essential in handling complaints. The public schools, in reflecting their communities, respect a formidable opinion against any book on their shelves, but great care must be exercised not to be intimidated by a lone dissenter whose tastes run contrary to those of the best authorities and to those of the majority of the community. At the same time, they certainly want a complainant to know that they will consider his opinion and that they welcome his interest.

Freedom of inquiry is essential to education in a democracy. To establish the climate essential for freedom, teachers and administrators need to follow book selection practices similar to those recommended here. Where schools resist unreasonable pressure, the cases are seldom publicized and students continue to read the books. Only if informed groups, within the profession and without, unite in resisting unfair pressures can school programs in literature do what they ought to do: to transmit intact our cultural heritage. ●

The Mood towards Change

World-Wide Renaissance in Education

In NASSP Spotlight

Reported from NASSP Spotlight, *the newsletter of the National Association of Secondary-School Principals, LVI (January-February 1963), 1–4.*

A WORLD-WIDE Educational Renaissance is underway—in content, teaching methods, and facilities—to provide for the increase in students and scholars everywhere. Education is going strongly uphill. The Educational Renaissance, in which a fourth of all mankind is now enveloped, may ultimately be as important to the world as the historic Renaissance, in which less than a fourth of mankind developed new patterns of culture and the arts 600 years ago.

Education is today the universal action embracing the hopes, yearnings, and aspirations of people everywhere. Hundreds of years hence, the twentieth century might be best remembered not for its exploration in space, nor for political and economic cooperation among nations, nor for development and conservation of resources, but as the great era of Renaissance in Education.

There is no certainty about where we are and where we are going. Even so, few leaders bespeak the status quo in education. Secondary schools particularly reflect the mood towards change.

In England the secondary modern school has developed rapidly since 1945, and has been called the British counterpart of the American comprehensive secondary school. In France, the *lyceé* system has undergone considerable reform within the decade. Turkey's experimental high schools are bringing a changed image of secondary education to the Middle East. In Latin America, Chile now enrols a greater percentage of secondary-school students in comparison with elementary enrolment than it ever has. Frank Bowles, president of the College Entrance Examination Board, on returning from a two-year assignment as director of a Unesco project on international college admissions, reports that the Soviet Union's secondary schools are becoming more like American secondary schools in respect to two conditions: diversity of enrolments and greater opportunity of access to university education.

These conditions contrast with a lack of diversity in secondary-school enrolments and a concomitant limited access to university education in most other countries. In these nations, the aim has been to develop an intellectual elite; whereas the objective of American secondary education has been to achieve quality out of diversity.

Despite the disparity in opportunities for access to university education, there is evidence to support the increased pace of improvement of secondary education in every country.

A similar acceleration of pace is seen at the university level in the United States and in many other nations. This is particularly true of the nations we call "new." In attempting the leap from colonial dependency to independent government, they regard education as a means of obliterating the past and acquiring the advantage of modern states. For them, education provides the power to shape their desires.

Most nations of the world now look on the education of youth and adults as the major instrument of economic, social, and political advance. Education and freedom go together and support each other. Mainly through education can man nourish and sustain his capacity to become free and remain free.

Does this imply that the pattern and processes of education will change as the Educational Renaissance gathers momentum?

BASIC ELEMENTS

No one can clearly foresee the course of future developments to prophesy what will happen. None the less, there will be basic elements characteristic of progress toward eventual universal education. Some of these are:

The individual remains as critically important. Mass education makes sense only if the individual maintains his identity. Learning is personal whether teaching is or not. Advances in technology will help the individual student to learn better, easier, and faster; but he will perform fewer tasks of rote learning and he will be expected to develop his critical and independent self as a student. Recognition of, attention to, and concern for the individual will always remain basic to teaching.

In formal education at secondary and university levels, students will be able to learn more in the same amount of time because of improved presentations by teachers and professors. The latter will, in turn, be more directly responsible for the success of their students. Teaching to the "central tendency" of a class will become outmoded.

Total amount of time devoted to education will increase at the adult and postgraduate levels. It will involve more people, and a greater commitment by them. The necessity for lifelong learning, already acknowledged, will gain wider acceptance. More and more persons will realize they cannot consider their education so complete as to close their textbooks for the rest of their lives.

Improved instructional materials will be the means for improving education. The teacher or professor who lacks good instructional materials—texts, workbooks, projectors, filmstrips, tape recorders, and videotape players—will be handicapped. Learning is more direct and constructive when students see the explanation.

There will be more flexibility in scheduling and facilities to encourage seminar-type teaching and independent study. Learning is more productive when the daily timetable loses the old sameness. The fetish of regularity—one period per day for major classes, 25 to a class, hearing of lessons, and identical assignments—does not stimulate an active loyalty to learning of all students.

Secondary schools will increasingly try better ways of teaching and organizing for teaching. Professional staffs will develop criterions for effective teaching that will achieve a high quality of individual excellence. Innovation for novelty will give place to innovation for renovation. The liberalizing arts of education will be reflected in the achievement of students who will compete against their own potential.

Teachers will be prepared in teachers colleges, liberal arts colleges, and universities. These institutions will have major responsibility for the teacher's potential; they will certify only those regarded as potentially good teachers and eliminate those considered of limited usefulness.

Secondary schools will be encouraged or expected to adapt their offerings to the capacities, interests, and aspirations of their students. In countries where there has been firm control at the Ministry level, control will be relaxed to allow the school staff to work out proposals for, and solutions to, improvement of instruction.

Scholars and school staff will increasingly cooperate to benefit instruction. This will improve programs and methods in secondary schools and colleges. Two aspects should be emphasized: articulation between levels will increasingly focus on individual progress to demonstrate that articulation lies more within the student than between institutions; ministries of education, where they exist, will gradually acknowledge the responsibility of the secondary school and university to work in behalf of individual progress and will, therefore, become more advisory than authoritarian in their attitudes.

A major outcome of the Educational Renaissance will be student satisfaction in learning with the result that there will be greater retention of students in secondary schools. The dropout problem will decrease as individual satisfaction in learning becomes a working cardinal principle of education.

Renaissance is rebirth. Education is the instrument of people everywhere for enlightment of mind and spirit. Not all the persons living in the fourteenth century were aware of the Renaissance that characterized their age. There may be similar perceptions today. We must trust our intuitions and watch the weathervane of history. ●

Inadequacy of Graded Organization

JOHN I. GOODLAD

In Childhood Education

AT least two major proposals now on the educational scene seem to support today's realities—that knowledge is expanding at an explosive rate; and that human beings are profoundly different from one another, so much so that these individual differences cannot be accounted for within the conventional graded structure of school organization.

The first of these proposes a longitudinal curriculum organized around basic concepts, principles, and methods of inquiry in the various fields of knowledge. The second, closely related and designed to account for such a curriculum, proposes elimination of the stratified, lock-step, grade system and the substitution of a nongraded plan.

When the graded school was established as the pattern for American education in the middle of the nineteenth century, the prevailing view of individual differences was quite different from the more enlightened view of today. Children then were apparently regarded as fundamentally alike, major differences lying in areas of determination, application, hard work, and so on. "If at first you don't succeed, try, try, try again" was the slogan. Such a perception leads to reward and punishment as the major stimulants to, and perhaps differentiators of, progress.

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At that time, too, with knowledge expanding at a slower rate, it may have been possible to define something called an elementary education. Packaging of a few bits of knowledge considered to be of most worth is impossible today.

Once established, it became necessary to fit the child to the graded structure. Nonpromotion was a natural concomitant. You simply had the child do over again what he had failed to do.

We now have a substantial body of research indicating that nonpromoted children do not learn as well as do their promoted counterparts; nonpromoted children are less well adjusted personally and socially than youngsters of equal ability who are promoted; nonpromoted children, more than promoted children, dislike school and wish to discontinue their formal learning as soon as possible.

It is possible for creative teachers to "beat the graded system." In so doing, they must run counter to prevailing practices, proposing and initiating adjustments that deviate markedly from existing practices. Often they become nuisances to administrators and other teachers who prefer that things remain as they are and have been. To remedy this situation, I would legalize the deviation of creative teachers so that what they do may become accepted as standard practice.

In the nongraded school, grade demarcations are swept away. Some schools eliminate grade designations at the outset. Others move toward this step slowly, perhaps first experimenting with multiple-grade groups and in various ways deliberately expanding provision for individual differences within a class. A major goal is to eliminate the grade-mindedness often firmly established in the thinking of teachers.

RECOGNIZES ABILITY RANGE

Essentially, nongrading seeks to recognize and plan for the range of abilities actually present in a given class. This means accepting that there are children working at levels below grade designation, varying widely from subject to subject. At the top of the scale, it is necessary to provide activities that would be classified at several grades above usual pupil-grade placement. There is no fear of encroaching on the work of the next grade; no need to stop because the work of the grade has been completed or because the teacher above expects children to be neither above nor below grade assignment.

It is essential that there be a redistribution of materials. Instead of a single set of textbooks for a class, there should be four copies of this, five copies of that, and seven copies of something else. Materials should be selected in anticipation of the range of accomplishments now present and to be present within the group as learning progresses.

There is no attempt to account for several years of pupil progress through an arbitrary and necessarily incorrect grade classification. Energy is devoted to providing for the range of individual differences that exists. By a system of overlapping the accomplishments present in any one group with the accomplishments present in lower and higher groups, it is possible to provide several placement alternatives for any given child at any given time.

EXAMPLE

Thus, in an elementary school with six classes encompassing the first three grades—two classes per grade—there would be a spread of accomplishment ranging from less than kindergarten to above the fifth grade, depending on the field of study in question. In the conventional graded plan, this pair of classes would be approximately alike in the individual differences recognized and instructional arrangements provided. Classes would be viewed in end-to-end relationship, the conclusion of the second leading directly to the beginning of the third, and so on.

In a nongraded plan, one might arrange for a pair of classes, X_1 and X_2, with an anticipated spread of individual differences from kindergarten to the usual second grade. Y_1 and Y_2 would anticipate a spread from at least the conventional first to third grades. Z_1 and Z_2 would provide for a spread of accomplishment ranging from second to the fifth grade. Each pair overlaps each of the other two pairs, thus providing several alternative placements for any child at any given time.

CONTINUOUS PROGRESS

In the nongraded scheme there is continuous progress for each child. There are several alternatives for placing children who do not appear to be profiting from their present environment. Also, there is improved opportunity for a reasonable balance of success and failure because the classroom environment is designed to legalize several levels of accomplishments at any given time. Children may move at different paces through the primary unit. In no case does a child "skip"; nor does he fail. Most children are a year or two "ahead" in some field or other; many are a year or two "behind" in something. The nongraded plan forces recognition of these realities. While it is an organizational scheme, it is, above all, an expression of a philosophy of education.

A longitudinal type of curriculum organized around basic concepts, skills, and methods of inquiry lies within the nongraded scheme. Children can be identified where they are on these continuums, making no effort to classify them by arbitrary, unrealistic grade standards.

Children progress continuously along these continuums with an appropriate balance of realistic success and failure. There is differentiated instruction for learners who obviously differ in ability to learn.

At present the nongraded scheme is most prevalent at the primary level. A few plans extend into the upper elementary grades. In an isolated community or two, consideration is now being given to the possibility of nongraded junior and senior high schools. There is no reason why the nongraded concept cannot be extended through the entire 12- or 13-year structure of education. In fact, the very logic of nongrading leads to a continuous stream of elementary and secondary education.

Logically, then, the nongraded plan leads to reduced discontinuity among elementary, junior high, and secondary units of the school system as well as to elimination of the lock-step inherent in the traditional graded plan. ●

An Opposing Viewpoint

Taps for Teaching Machines

JOHN F. FELDHUSEN

In Phi Delta Kappan

LOGICAL questions to ask now are: Is the teaching-machine movement a failure? Is programed learning material in any way more effective than simpler narrative presentations by text, teacher, or television?

A growing tide of research evidence, classroom experience, and personal sentiment suggests a "yes" to the first question, a "no" to the second.

The demise of the machine came first. A number of researchers reported that learning proceeded as well with programed texts or with other substitute devices as with mechanical teaching machines. It appeared that the essence of the whole business, the program, could still be presented effectively without a machine.

The need for overt, active participation through questions or responses was asserted by Skinner. But a number of researchers produced evidence to indicate that covert or mental responses, or presentation of a program with no direction or opportunity to respond, were just as effective. In several projects, the opportunity for overt response was removed by filling in the blanks and requiring the student merely to read the statements. One researcher reported a decrement in learning under this condition, but several others reported that students learned as well when they merely read the narrative statements.

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Attention was also directed to the size of step or amount of information packed into each frame. Could the learner handle a paragraph? Or must we stick to the small bits of information in each frame, as Skinner proposed? The answer seemed to be that a frame or step of the program could be larger, sometimes as large as a paragraph, and effective learning would still occur. But evidence favoring the small step was also forthcoming.

What of the feedback system in programed learning? Is it indispensable? Pressey's background work seemed to support the underlying principle. But Pressey's work was not done with programed learning material. He demonstrated the instructional value of immediate feedback of right answers in a testing situation. Would the principle hold true for the linear program? The answer now seems to be no.

First, several of the studies showed that even though the researcher filled the blanks with the right responses, and merely asked the student to read the frames, the amount of learning was not reduced. Here, there could be no formal feedback, since no observable performance was required of the learner.

Still other researchers removed or reduced the feedback of right answers while requiring active participation in the form of blanks to be filled or questions to be answered. They found no decrement in learning.

In general, it seems that a linear program written to assure correct response is inherently so easy for most learners that they know they are giving right answers without having to check with a feedback system.

REINFORCEMENT OR BOREDOM

Perhaps most sacred was the reinforcement principle in teaching machines and programed learning. Frame by frame and program by program, the learner should find his correct answers, his successful performance reinforcing his learning. But instead of reinforcement, some researchers found disturbing signs of boredom, or the "pall effect," among students after longer regimens of programed instruction. The signs of boredom and dissatisfaction were sufficiently great to indicate that the program would not be a uniformly reinforcing experience for all youngsters.

Another great new advantage claimed for teaching machines and programed learning was that differences in aptitudes or intelligence would be reduced or eliminated as factors in learning. Children at various levels of mental ability would learn equally well from the program. However, recent research evidence indicates that this is not true. As with most learning materials, able youngsters learned more and learned more rapidly with the programed material. The task with the program is to read and write or select correct answers—essentially verbal activities, which naturally makes it more suitable for bright and more verbally able youngsters.

The advantage of individual rates in learning was also offered as a factor in programed material. But it was found, in two projects, that there was no decrement in learning when the program was presented at a uniform rate.

Another problem which has received considerable attention in research, and which has yielded equivocal or negative evidence, has to do with the response mode as constructed (writing responses) or multiple choice. Skinner preferred the constructed response. But two researchers report that it did not seem to make any difference, in terms of amount learned, which mode of response was used. Another has found that constructed responses are superior. It was pointed out that the response mode used is related to the kind of terminal behavior sought and possibly to the relative performance of learning sought. The constructed response might be preferable for certain kinds of learnings, while the multiple choice would be preferred for others. Similarly, the constructed response might produce learning which could be better retained for longer periods than the multiple-choice response mode.

The problem of the order of frames was also investigated. Three recent reports indicate that with a relatively short sequence the frames may be scrambled without hampering learning. But it is noted that in a larger context learning is jeopardized by scrambling an entire program.

Finally, the question was asked whether children can still learn at all or as well with regular narrative material as with programed material. All learning principles incorporated in programed instruction and claimed as advantages were stripped away. Now, with the narrative statements restored to paragraphs, we are about back to where we started. Several researchers (myself, Silberman, *et al.*) found learning just as effective. Lo and behold, students can still learn well from narrative instructional materials!

Lawrence M. Stolurow suggested recently that a problem facing enthusiasts in the field of programed learning is getting teachers to accept and use programed materials and teaching machines. The evidence reviewed here indicates that, rather than get teachers to accept or use programed materials, we should caution them to proceed slowly. They ought to be urged to question excessive claims.

Stolurow deplores gross efforts to compare the teaching machines and program with a live teacher because of research difficulties in controlling variables which may affect the outcome. In response, we echo the classic, "Life is complicated."

We must not retreat from the problem because of experimental difficulties. We want very much to know if learning from machines and programs is as effective as learning from a live teacher or other available mediums. We want to know more about concomitant learning effects which or may not be introduced by the teacher. We wish to know what things the program can teach well and what must be left to the teacher. Thus, the teacher must continue to be involved in comparisons with programed instruction—but with improved experimental techniques designed to achieve better understanding.

Sidney L. Pressey said recently, ". . . . enthusiasts carry an idea to extremes." This certainly has been true of programed learning. ●

1963

Some Are Old, Merely in New Guise

What's New about Today's Innovations?

J. M. LYNCH

In NJEA Review

MANY proponents of change in school programs give the impression that their proposals are "not just new, but new clear through." Yet on hearing descriptions of devices and practices they advocate, one gets a feeling of "This is where I came in."

The "new" aim of education, we are told, is to let children progress at their own pace. Programed instruction is hailed in the 1960's as "fundamentally new"—the first "real innovation in teaching in years."

Promoters of programed instruction take issue with the "lock-step" practice of teaching all pupils in a grade or class *en masse*. Each pupil, they insist, should progress at his own rate of learning. Every pupil should be given the opportunity to achieve success. These objectives are to be accomplished by breaking down each area of knowledge into its simplest components, presenting one element at a time, and rewarding the pupil immediately for each correct response and correcting wrong answers immediately.

There is something familiar about this call for a sweeping revision.

About 1900, Dr. Maria Montessori developed "selfteaching" devices which enabled the child to educate himself. Her "didactic" materials were so constructed that the child could see his own mistakes and correct them—"the finished result is perfect; partial success or failure is not possible."

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In 1912, Frederick Burk published selfinstruction books in arithmetic, geography, grammar, history, language, and phonics.

Carleton Washburne, in the mid-1920's, organized the work of the Winnetka schools in such a way that each pupil could progress at his own rate. In his "individual arithmetic text," the work is divided into steps, each step has just one new thing to learn, the pupil can teach himself, test himself, and find out whether he understands what he has been doing.

The "new" (1960's) version of learning contends that abstract ideas must be made concrete. Typical, in the "new" developments in teaching arithmetic is a series of plastic trays containing square pies cut from a rubber material. One of the pies is whole, one is cut in half, one in four quarters, and another in sixths and twelfths. A second tray offers the same lesson with circles, whole and divided.

Such items were quite common in teaching arithmetic during the 1920's.

Another "new" item in the 1960's in the realm of concrete materials for teaching arithmetic, Cuisenaire's rods, has a familiar ring. These varicolored sticks of the same width, but differing in length from one to 10 centimeters, help children learn through manipulation of the rods.

This approach was practiced by Montessori through use of a set of wooden bars with the length variations aiding children in learning the combinations up to 10. Similar materials developed by Catherine Stern were marketed in the 1940's.

The new reform movements, like those of earlier days, have a penchant for new terminology—new names for old ways of teaching.

Some old practices never die; they fade away—for a time—then turn up again in a new suit of clothes. What used to be "spiral learning" is a case in point. "Spiral reinforcement" is now being reported as a "new" method of teaching. The term refers to a technique of developing basic concepts thoroughly, then using them repeatedly at higher levels.

In "The Teaching of Mathematics" (1906), Young describes the spiral method of teaching: "This method proposes to recur to each of the principal topics of arithmetic many times, and at more or less regular intervals. Each recurrence is to strengthen and enlarge somewhat the child's knowledge of the topic."

Among the "new" approaches to the teaching of reading is the "phonovisual" method, which attempts to combine phonics, whole words, and word-pictures. It is difficult to distinguish between this method and the "auditory-visual" methods of the 1940's.

The endless search for novelty goes on. The history of education is instructive in this regard. Some reactions to the shortcomings of existing practices manifest a tendency to go to the other extreme—to go all the way back. Others seek change for the sake of change—the "anything so long as it is the *latest*" type. Others desire change for the sake of improvement—the "something that is better than the old" type.

There is always room for innovation in the field of educational practices. However, there are no simple solutions with respect to accepting or rejecting the numerous plans presently being offered to help teachers. The underlying philosophy of education should be taken into account. Research results—especially studies of the psychology of learning as it operates in classroom situations—is another criterion. Still another is the investigation known as historical research. Teachers need a solid grounding in all three areas. ●

A Program Based on Reality

Preparation of Elementary-School Teachers

ELIZABETH Z. HOWARD

In The Elementary School Journal

IN most teacher-training institutions, programs for preparing elementary-school teachers seem to be planned and carried out in terms of what has traditionally been considered good: a series of courses, some in general education and some in professional education, followed by a period of practice teaching, or internship, or both.

Among the criticisms of teacher-education programs was that voiced recently in the book *The Preparation of Teachers: an Unstudied Problem in Education*. The authors—Seymour Sarason, Kenneth S. Davidson, and Burton Blatt—looked carefully at certain aspects of teacher-education programs generally, with an eye particularly to how well they prepare teachers to deal with the real problems of children. The authors have this comment: "What is so distressing to us is not only that the theory and practices of training frequently bear little relation to each other, but that neither bears a strong relationship to the reality of the everyday tasks of the teacher."

The Elementary Teacher-Training Program at the University of Chicago has tried a number of approaches to this problem. A plan currently in use, while still experimental, seems to offer promise.

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Students in this program are in their senior year, or they may be graduates of a college in some field other than education. They enrol in the program en bloc and receive 30 semester hours of credit in education at the conclusion of three quarters of work. Full time is available for concentration on the job of learning to become a teacher. Because it is felt that direct experience with children is of major importance, these students devote half their time to working in classrooms.

The program begins at the start of the autumn quarter. Throughout October, each student has a morning assignment as a student aide in a public-school classroom. The student attends class sessions at the University during the afternoon. In November, each student moves to a new assignment as an assistant teacher in a classroom in the University's laboratory school. About the end of February, the student, still an assistant teacher, moves to an assignment in a different classroom and usually at a different level. In all three assignments, the student assumes many of the teaching responsibilities and makes immediate use of the course-work learning he is acquiring.

For the entire group, afternoon class sessions are concerned with educational and child psychology, history and philosophy of education, instructional methods in most of the elementary-school subjects, learning theory and research, and a variety of other aspects of teacher preparation.

VALUES AND BELIEFS

A primary feature of such planning is the conscious effort to select learning activities that will be relevant to teacher-preparation objectives. But the final selection of learning activities is influenced also by our commitment to certain values and beliefs. Among them are:

Theory and practice are too closely interrelated to be separated in time. As students are introduced to theoretical aspects of the discipline of education, they must have opportunities to see something of that discipline in its functional setting, and even to make use of it themselves. Therefore, for example, while they are discussing with an educational psychologist in the afternoon sessions "the concept of a concept," they are having opportunities in their morning classes to look for ways in which the teacher helps children develop concepts, or to see for themselves the processes through which children seem to build concepts.

Learning to identify with a role requires practice in that role. The practice must be close enough to reality to be emotionally meaningful. This commitment is not unlike that held by those who plan the majority of teacher-education programs, for in every case there is a period of practice teaching or internship that is evidence of a belief in the value of practice in the role. In combination with the preceding belief, it becomes necessary to provide the role-practice at the same time that the theoretical inquiry is being pursued. Consequently, there is no time during the whole of the Elementary Teacher-Training Program when students are not attending to roles as assistant teachers and to their jobs as students of the discipline.

Teaching style is an individual thing. Each person develops his own teaching style in the way he relates to his pupils and in his ability to deal with all the aspects of the teaching-learning act. Students working closely with at least three classroom teachers during an academic year are exposed to the teaching style of many instructors. This exposure is consciously tapped as a source of meaning about what teaching is.

The discipline of education is compounded of a growing desire to learn and a recognition that learning is a life-long pursuit. This belief negates the notion that there are certain specific and limited bodies of knowledge that people need to have, and insists that knowledge and wisdom cannot be measured in terms of college degrees, credit hours, or number of books read and facts known.

This belief necessitates a dynamic view of methodology and of the curriculum of the elementary school. The content of academic disciplines cannot be transmitted in the way it was learned; it must be reorganized for teaching purposes. Also, content acquired in general-education courses and in previous scholarly pursuits is not enough; new knowledge is accumulating so rapidly that unless a person is a continuing scholar and learner, he cannot be a teacher in the true sense.

Learning is an act of inquiry, of discovery. Stimulation of learning, then, becomes an act of providing an environment in which learning may take place—not just on the part of the pupils but also on the part of the teachers.

Teacher candidates have their best opportunity for inquiry into the realities of the teaching role when they are given opportunities to become sharply aware of frustration or difficulties in their own ability to live in that role. As they become aware of inquiry as a need-meeting process in their own experiences, they are better able to identify with their pupils' efforts in classroom situations, to recognize the kinds of problems their pupils face, and to help their pupils in turn to use inquiry as a satisfying method of learning.

Consolidation of role, discipline, and method cannot take place in bits and pieces. Simultaneous attention to all three aspects will contribute markedly to the accomplishment of the consolidation objective. There is value, also, in keeping the group of students in any one year small enough that they may function as a group in their afternoon sessions, learning from one another as well as from instructors. Furthermore, there is an important advantage in having staff members of the program serve both as coordinators and supervisors of the total enterprise.

Through sitting in on most of the class sessions conducted by instructors drawn from the content fields, staff members are able to point up factors or forces that are common to all fields and to refer to some of these in supervising students in teaching situations.

Evaluation of a program of this kind is as difficult as is evaluation at any level of education. No planned investigation has yet been carried out to follow up the graduates. One study of the change in students within the program has been made, so we know that students do change in becoming more realistic in their conceptions of teaching. This is a first step, not an evaluation. When the planned evaluation is carried out, it is hoped the findings will suggest new ways of approaching the problem of significant teacher preparation. ●

Evaluation and Pupils

In Toward Better Evaluation of Learning

ONE major purpose of evaluation should be to help the pupil to an adequate selfevaluation. He is the one most directly affected by evaluative procedures. A fair evaluative system can give him security and confidence. Too often the grading, reporting, and testing appears to the student as something done to him, not something in which he is an active participant. It is necessary to consider the student as evaluative procedures are developed and to ask continually, "How does what is done affect the individual student?"

Research indicates that students are concerned about grading, reporting to parents, and taking tests. In some communities where there is a great deal of emphasis on getting into college, students may become tense about getting good grades and doing well on tests. By identifying the pupils' greatest concerns, a school system may be guided in those aspects of evaluation in which adjustment of policies is needed.

Several studies reveal that anxiety is generated when report cards are sent to the home. If pupils are unduly worried about their report cards, perhaps reporting practices should be examined in the light of these questions:

Is the report card describing the effort that the child made in terms of his ability? In terms of fixed standards?

Is the report so infrequent that lack of progress can come as a shock to the parents?

Could there be more continuous reporting to keep parents and pupils better informed?

Is there pressure on pupils to "do better than the neighbors" or to "get good grades so he can get into the best colleges" rather than to "do his best"?

It might be useful to determine what attitudes pupils have about the evaluative process. The pupil's feelings about standardized tests, as a part of the evaluative process, may have a great deal to do with his level of achievement. Some pupils consistently achieve below

Reported from Toward Better Evaluation of Learning, *a pamphlet published by the NEA Council on Instruction, Washington, D.C., (1962), 15–18.*

ability due to a conviction that there is no point in trying.

Giving pupils help in understanding what test scores mean, and in using them constructively, is as important as interpreting such scores to parents. Pupils need to see clearly where their potential lies as well as where they need to work harder.

An important item is creating a good atmosphere for taking tests. Studies show that motivation to succeed can influence test scores. Making students anxious, or threatening them in any way ("if you don't do well you will be put in the C section") may only serve to lower scores.

CHEATING

Students, as well as teachers and parents, are concerned about cheating whenever it occurs. Evaluative processes should be developed and administered to minimize the possibility. The involvement of pupils in the evaluative process will bring forth many practical insights and suggestions. The following questions are pertinent:

Is cheating related to class size, grade level, or other administrative factors?

Is cheating more prevalent on tests or on homework?

Which teaching practices tend to encourage and which tend to discourage cheating?

Another area of pupil concern that might be fruitful to study is the meaning marks have for pupils. There are situations where youngsters fear being called "brains" or "apple-polishers." Where such attitudes prevail, the student who really wants to do well and who has ability to achieve needs the help of perceptive adults. Perhaps the climate of pupil opinion, too, can be improved.

In situations where youngsters are pressured to go to college and students compete for high marks, the child who cannot do well may be seriously troubled. Acute competitive pressure for grades can occur even in a class of pupils selected on the basis of ability. In the process, genuine learning may be hampered.

Another area that should be given attention in an examination of the evaluative process is the evaluative results and the pupil-teacher reaction. A student may believe that a low grade was the result of having a teacher who was not good for him—and he may be right. Some students and some teachers do not get along. We need to examine policies that make it difficult, if not impossible, for a pupil to be transferred when it becomes evident that he and his teacher are not having a good year together. Or perhaps the organizational structure, insofar as grouping and assignment of pupils is concerned, should be restudied.

If students find that success is not always measured by what they have learned or can achieve, but rather by such intangibles as a teacher's liking for them, being easy to get along with, being fair or unfair in any one of many ways, then the purpose of evaluation is largely lost.

Student attitudes can be shaped constructively by creative, masterful teaching and by homeroom and assembly discussions. The pupil, as he matures, must be growing in his own responsibility and ability to adapt to other personalities—including the teacher.

The following could serve as guidelines in examining the evaluative process:

An important aspect is centered in pupil-teacher and pupil-pupil planning which involves planning what should be done, planning how it can be accomplished, and judging how well it was done.

A desirable classroom climate fosters participation by pupils in evaluative procedures. The pupil is accepted, his ideas are valued by the teacher, and he is not subjected to personal threats, hasty judgments, or unreasoned actions.

Pupils and teachers are concerned with evaluation of progress toward a variety of goals in all areas of growth—academic, social, physical, and emotional, and care is taken that dimensions which seem easy to measure are not overemphasized in the evaluation process.

Selfevaluation is a basic part of effective learning; and the pupil is helped to grow toward maturity by assuming personal responsibility, by setting goals for himself, and by measuring his own progress in terms of his purposes, potential, and needs.

Evaluation should bring the pupil satisfaction. Knowledge of progress or lack of progress, if seen in the light of the total evaluation process, is helpful, not threatening. Evaluation procedures can raise the level of aspiration of pupils. ●

Evaluation -- of a Sort

● "The trouble with some people," the principal told his secretary, "is that they don't admit their faults. I'd admit mine—if I had any."—From *Mississippi Educational Advance.*

● A college registrar asked the entering freshman if he was in the top half of his class. "Not exactly," the boy replied. "I'm one of those who make the top half possible." —From *Minnesota Journal of Education.*

● We always think every other man's job is easier than our own. And the better he does it, the easier it looks. —From *Arizona Teacher.*

● The battle of the sexes will never be won by either side; there is too much fraternizing with the enemy.—From *North Carolina Education.*

Evaluation of Guidance Services

GEORGE E. HILL

In The Clearing House

WHILE some people still ask, "What do counselors *do?*", the question, "What does guidance *accomplish?*", is becoming more common and insistent.

The answer, like answers to most questions about educational efforts, is complex. A few of the variables involved are:

The question regarding results can be answered sanely only if the guidance program has clarity of purpose and objective. The objectives must be specifically defined as outcomes which can be identified, measured, and evaluated.

Guidance efforts by persons identified as guidance workers in the school represent service efforts in two ways: They are an aid to students and they seek to enhance efforts of the instructional and administrative staffs. Guidance outcomes cannot effectively be siphoned off from instructional outcomes. It is almost impossible to isolate effects of one aspect of a total program which seeks to help young people become more humane, more productive, more sane.

The attempt to identify outcomes of guidance efforts is further complicated by a multitude of out-of-school influences, including the influence of parents.

Evaluation processes are complicated by the subtlety, the subjectivity, the elusiveness of variables of great significance.

Evaluation of a set of services is further complicated by the temptation to get too involved in looking at the services, rather than at the results. This is the difference between *process* evaluation and *product* evaluation. Most guides available for evaluation of guidance deal with such matters as staff and their qualifications, time, facilities, duties performed, and the like. A good deal of this goes on in schools in the name of "evaluation." The guidance profession has developed a considerable body of empirical evidence supporting certain standards of performance. But, basically, such evaluation is woefully incomplete if we cannot step beyond it to assess the impact of these proc-

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esses, these services, on boys and girls.

Evaluation of guidance takes a great deal of time, ingenuity, and effort. Thus, it it is not done often.

A most serious sin—one that marks us as still far from a true profession—is failure to strive harder to define, and thus to limit, our functions. Counselors are notorious for being "overworked." Too often it is not overwork but misapplication of effort that plagues us. Time for evaluation is an imperative must—not an extra that can be eked out as expediency permits.

Every guidance program should be subjected to identification of its nature, and to assessment of what takes place in the name of guidance through use of a systematic guide. Several guides of proved usefulness are available. Whether thorough or relatively sketchy evaluation is intended, guides adapted to a variety of uses are available.

Over the years, scores of studies regarding the outcomes of guidance have been conducted. Some have been comprehensive efforts at assessment of the impact of the guidance program on groups of youngsters over a period of time; others have been studies limited to small populations or limited to specific aspects of the guidance effort. Studies of the outcomes of counseling as such, in particular circumstances, have been especially common.

All these studies, and many unpublished studies made in local schools, have either begun with explicitly stated outcomes to be assessed, or such outcomes have been assumed in the study and emerge by inference as one examines the evaluation procedures.

In the following, suggestions are made as to how a school staff may develop a sound base for evaluation of guidance outcomes and proceed to that continuous assessment of outcomes which is essential in sound program development.

SHOULD STATE PURPOSES

There is agreement among professional school counselors and guidance administrators that a basic point of view regarding the purpose of guidance in a school is a *sine qua non* of good program development. These purposes tend to center around the development of children in this rapidly changing world, their selfunderstanding, their planning, their making of wise choices, and their individual fulfillment.

The desired outcomes, developmental changes, and achievements, must be stated. The basic purposes must be translated into observable, and perhaps measurable, changes in people. One school staff produced the following:

I. Outcomes related to student growth
    1. Improved selfdiscipline on the part of the students
    2. Improved social adjustment, less delinquency, decrease in problem cases
    3. Decrease in dropouts, greater holding power

4. Students have more satisfying experiences
5. Students are more confident of the future
6. Students know more about themselves
7. Students exhibit wholesome philosophy of life
8. Students make more decisions without help; selfdirection evidenced
9. Better distribution of student choices, vocational and educational
10. Generally improved level of success in relation to abilities

II. Outcomes related to teacher growth
    1. Improved cooperation within the school staff
    2. Teachers are more conscious of and understanding of student needs and how their instructional practices affect students
    3. Realization of some of our weaknesses, growth in selfcriticism

III. Outcomes related to improved program
    1. Closer cooperation of home, school, and community, better public relations
    2. Improved curriculum
    3. Improved guidance program
    4. Elimination of some subjects, addition of others
    5. Better teaching
    6. Better school morale
    7. Less subject changes among students

Sound evaluation, it must be emphasized, is rooted in systematic and recurring fact gathering. Counselors and guidance administrators must center attention more on fact-gathering and less on opinion-formulating.

FACT-FINDING OUTCOMES

The fact-gathering process must start with systematic study of the school's pupils, over the years. These studies could well be oriented to such outcomes as listed above, and include:

Development of local test normative data providing insight into certain measurable characteristics of the school population and changes in these characteristics.

Recurring, perhaps annual, study of the students' reported goals, current activities, and problems. Such information, over a period of time, provides data which sharpen our insights into the realism of student plans.

Periodic use of student opinion inventories regarding guidance experiences.

Periodic use of tabular analysis of the sort incorporating post-high-school plans, by sex and ability level, numbers entering college, numbers enrolled in certain academic subjects by ability level, and vocational choices by sex and ability.

Continuous individual case-study efforts dealing with exceptional children in most cases. Long experience in many schools has demonstrated the significance of the case study as an in-service aid, as an aid to helping the individual youngster, and as an aid to program evaluation.

Finally, systematic study, over the years, of the following: annual analysis of course selection, periodic tabulation of course changes among the students, tabulation of student requests for counseling assistance and nature of problems discussed, periodic tabulation of staff references and the nature of problems, periodic studies of student personal folders with attention to anecdotal reports from counselors and staff, parental calls and reports, periodic dropout studies, etc.

This fact-gathering process is never ending, almost limitless in possibilities. Without it, the school's guidance program has to be promoted and planned on the basis of pooled opinion.

If a staff develops a statement of proposed outcomes, they will be stimulated to do a variety of fact-gathering studies and to keep asking, "What do these facts tell us about the achievement of our proposed outcomes?" The guidance program thus is truly developmental, maturing through truly professional selfevaluation.

When a staff systematically meets in this mood, the questions arise: "How far can we go in achieving desirable guidance outcomes without more rigorous assessment of the instructional program? Are we not binding wounds and healing scratches created by inept and poorly adapted instruction?"

The U.S. Office of Education's publication on guidance, *Criteria for Evaluating Guidance Services,* refers to guidance services as an influence on school development and lists several possible lines of investigations, including:

New forms of curricular offerings in view of data revealed by the guidance services. Methods of instruction modified in accordance with pupil characteristics as revealed by guidance services. Curriculum elements eliminated in light of unadaptability to the pupils' needs or to the needs of the community, as revealed by guidance services. Modifications of instructional offerings and schedules to include provisions for pupils with special abilities, handicaps, and unusual situations.

Such criterions for the evaluation of guidance services assume that school counselors and guidance administrators systematically seek this data, and push the implications of these interpretations to the point of assisting with instructional program modifications in the school. Do we? If the results *are* to be of maximum consequence, the guidance studies must be applied to instructional planning and modification. ●

THE interview is the heart and soul of the guidance process. Conducting a student interview takes skill, personal warmth, an honest liking for people, and above all—the ability to listen . . . Don't talk when you should be listening. A relaxed silence may bring about some in-depth thinking.—From *Techniques for Teachers of Adults.*

Our Times Demand It

A New Approach to Social Studies

LEONARD S. KENWORTHY

In NEA Journal

TODAY, the question of whether there should be a new approach to social studies is being pondered. There is some probing for ways of modifying existing programs to bring them up to date, since alert administrators, school boards, curriculum workers, social-studies teachers, and others are aware that drastic and fundamental changes have already taken place in the United States and in the world in recent years, and that others are rapidly emerging.

In the United States, these changes include: rapid growth of urban complexes, increasing facility of transportation and communication, the mobility of the population and the large shift of population to the southwest and to Florida, increased recognition of the rights of minorities, greater leisure, the impact of science and technology, and the growing interdependence of the United States and other parts of the world.

On the world front, changes may be even more noticeable. These include the revolts against poverty, ignorance, and illiteracy; against long-established forms of economic and political organization; and against traditional value systems. This revolution is apparent in the rapid emergence of new nations, with the result that one person in every four of the world's population has gained political selfdetermination since World War II. Another factor is the advance of communism, with the result that one person in every three in the world now lives under that form of government.

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Further developments are the establishment and growth of the United Nations, the formation of the European Community, and other regional organizations.

These and other changes demand a revised social-studies curriculum for boys and girls who will live out their lives in the latter part of the twentieth and the first part of the twenty-first centuries.

I believe such a new program can be developed without radical changes in existing programs.

An up-to-date program calls for a continuous, cumulative, and comprehensive curriculum from the nursery school to college, with the unifying theme of the six basic segments of society—the individual, the family, the neighborhood and community, the larger community (city, area, state, region), the United States, and the world. Each segment should be studied in almost every grade, with emphasis depending on the maturity of pupils.

SOME NECESSARY CHANGES

Such a program is not a radical departure from the existing programs of most American schools, but it does incorporate some necessary changes. These include a much earlier introduction of children to the world, insertion at appropriate places of some study of the larger community, and a much greater emphasis on the world, with particular stress on non-Western nations and the concept of cultures.

The focus for the social studies in nursery schools, kindergartens, and the primary grades should probably be on the basic theme of "individuals and families." The almost universal practice of studying the families of pupils and other families in the local neighborhood should be retained, but selected individuals and families in other parts of the United States and in a few parts of the world need to be added, to give more breadth and content to the social studies in these early years.

In grades 3 and 4, selected communities in the United States and the world should supplement current emphasis on local communities.

Such a program would provide more depth and continuity by stressing the same or a similar theme for a two-year sequence — for example, the study of selected countries in grades 5 and 6, of the United States in grades 7 and 8, and of the major cultures of the world in grades 9 and 10.

This plan needs to be realistic. It would include U.S. history in the eighth and eleventh grades, in recognition of existing requirements in most states. Since it is unlikely that pupils will gain a deep and abiding understanding of the United States merely by the study of history, the plan should provide for introducing a seventh-grade course on the U.S. today.

Why begin U.S. history with today? First, to evoke an interest in discovering the explanation of the present in the past. Second, to await the greater readiness among older children for grasping historical concepts.

Finally, the plan I envisage replaces the current course in problems of democracy with a similar but slightly different course about contemporary problems or about the international community, which would examine local, state, and national problems in their world setting. Thus, the conservation of U.S. resources would be probed as part of the world-wide problem of resources for the six billion people expected by the year 2000.

This, then, is one answer to: "Is there a new social studies which can meet our needs for the foreseeable future?" ●

Elements Affecting Standards

Housekeeping and School Fire Protection

R. N. FINCHUM and GLENN C. BOERRIGTER

In School Fires: Prevention, Control, Protection

GOOD housekeeping is undoubtedly a most important precaution against school fires. Those responsible for supervising housekeeping activities should work cooperatively with operating personnel to plan procedures, develop work schedules, and follow practices that will insure maximum safety against fires.

Elements affecting the standards of school housekeeping in fire safety are: types of duties, community use of buildings, inspections, reporting and correcting hazards, and custodial utilization of special information and materials on fire safety.

Types of Housekeeping Duties. —School officials usually are justifiably concerned in regard to the capable performance of such housekeeping duties as cleaning, waste and rubbish removal, incineration, storage, care of decorations, handling of ashes and clinkers, and handling of flamable liquids.

The process of removing dirt, grease, litter, and other types of obnoxious rubbish includes some duties which must be performed daily; others, periodically. Daily cleaning duties affecting fire safety include removal of waste paper, sweepings, and other litter and rubbish; cleaning of shop areas and disposing of shavings, sawdust, and other combustible wastes; and, if heating units are coal-fired, removal of clinkers and ashes from the firebox and ash and soot from flues and tubes. Cleaning activities performed periodically for safety include inspection and cleaning of heating and ventilating systems, plenum chambers, and exhaust hoods.

The importance of keeping heating and ventilating ducts clean, free of waste material, and operable at all times cannot be overem-

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phasized. Plenum chambers should be inspected monthly, cleaned as inspection reveals need, and placed off bounds for storage of any kind. Exhaust fans and hoods—in laboratories, home-economics departments, kitchens—collect and hold dust and other particles that present a hazard if not thoroughly cleaned periodically. These hoods and ducts serve as natural flues for any fires that might originate in them.

WASTE PAPER

Paper of various kinds, essential to the education process, is often discarded in unbelievable amounts. Other materials accumulated in waste baskets and refuse containers include broken pencils, crayons, cardboard, excelsior, etc. Accumulation of such material can be, and often is, a contributing factor to the origin and spread of fire. It should be removed daily from all rooms and carted away from school premises. If daily carting away is not possible, there should be temporary storage in covered metal drums in a room of fire-resistive construction—not the furnace room. Oil- or paint-soaked cloths, or discarded wax applicators should be stored in covered metal containers separate from those holding paper and other rubbish.

Open incinerator pits on school premises are objectionable from the standpoint of esthetics and odor and are hazardous because they attract children and emit fly ash and sparks when in use. If a community incinerator is not available to schools for disposing of burnable waste, the best solution is installation of incineration equipment which meets National Fire Protection Association (NFPA) standards.

If a school prefers to bale and sell waste paper as salvage, temporary accumulations (preferably not more than one day's supply) are permitted if the accumulation is kept in covered metal drums stored in a fire-resistive, segregated area under custodial control. If the paper is stored after baling, it should be stored in a fire-resistive room with sprinkler protection, segregated from the main building.

Without adequate storage facilities, school personnel face a dilemma regarding storage of furniture, equipment, materials, and supplies on hand but not in use. Regardless of the facilities, they should never use corridors, vestibules, halls, stairs (or the space under them) for storage purposes.

SCHOOL DECORATIONS

Among the types of school decorations having particular significance for fire safety are drapes and curtains, valances, rugs, framed works of art, lamp shades, lanterns, objects made of papier-mâché, and special types of decorative materials used for various holidays and seasons. Most decorations are available in flame-resistive materials. Any that are not of this quality should be given appropriate flameproofing treatment before they are installed, used, or stored.

Even flame-proof decorative materials will burn if exposed to extreme heat, thus contributing fuel to any fire that reaches them. For this reason, they should be stored with utmost care when not in use.

The number of school fires caused by hot ashes and clinkers is not a matter of record, but an NFPA study of 300 school fires revealed that 25 originated in furnace rooms. That a high percentage can be attributed to exposed ashes and clinkers is a safe assumption.

When live ashes, coals, or clinkers are removed from boilers, furnaces, or other coal-burning equipment, they should be placed in metal containers. Containers should never be deposited on, under, or near wood platforms, floors, or other combustible materials. They should not be left in coal bins whether the bins contain coal or not. Maximum safety can be assured only if these containers are removed from the building immediately after refuse is deposited in them.

FLAMABLE LIQUIDS

The NFPA recommends that storage of flammable liquids and gases in educational institutions be limited to minimum requirements for maintenance, demonstration, treatment, and laboratory work. It also recommends that safety cans of no more than one-quart capacity, with selfclosing covers which minimize evaporation and spillage, be used and that these cans be stored in metal cabinets.

If large quantities of flammable liquids must be stored in school buildings, they should be kept in well-ventilated, fire-resistive rooms with selfclosing fire doors that are locked when not in use. "No Smoking" signs should be posted on the outer facing of the door and conspicuously inside the room.

Pumps are the best means of removing flammable liquids from tanks and drums, but gravity-flow faucets are often used. If the latter are used, they should be of the spring-closing type.

Community Use of School Buildings.—School buildings used for community purposes are exposed to prolonged fire hazards. This extra utilization creates additional housekeeping problems, necessitates greater storage facilities, requires prolonged use of the heating plant, and places a heavier load on operating personnel.

If professional school personnel are not in attendance when facilities are in use by community groups, responsible people in these groups need to know regular and alternate exit routes from all areas of buildings occupied by them; where telephones, alarm systems, and extinguishers are located; and how to use the equipment. Providing information on these points may consume custodial work time not provided for in the regular schedule.

INSPECTIONS

Inspections.—Daily inspection of a school building for safety is a responsibility primarily of the building principal and his custodial staff, but teachers, other employes, and pupils should be observant of conditions and should report any conditions appearing to be dangerous.

In the daily building inspection, the principal or his designate should accompany the custodian to determine that all duties relating to fire safety have been discharged. These items should be checked: all exit doors are operable, corridors and stairs are not obstructed, no waste and rubbish has accumulated in the furnace room, conditions in furnace rooms and other danger areas appear normal, fire detection and protection devices have not been tampered with, and no unusual conditions appear to have developed since the previous inspection. All custodians should be alert to potential fire hazards as they make their rounds during work periods.

CORRECTING HAZARDS

Reporting and Correcting Hazards.—Officials should use every reasonable resource available to them for detecting school fire hazards. Outside assistance can be secured, usually without cost, from state insurance inspection bureaus, the PTA, local fire departments, state fire marshals, and in some cases local insurance agencies. Their services should be sought periodically for inspection to *detect* and *report* hazards, and to assist in training school personnel in detection procedures and methods.

For the school custodian to meet his immense responsibility for school-fire safety, he should have thorough understanding of the various mechanical systems; know how and where to store supplies, materials, equipment, and furniture; be able to test periodically, and to use, extinguishers and protective equipment; and should have a thorough knowledge of evacuation plans or alternates covering all exit routes from the building.

To insure that the custodian is informed, steps can be taken to direct manufacturer's booklets on equipment and other pertinent literature to him.

In addition, custodians should have available for immediate use (preferably posted on their bulletin boards) the following: telephone emergency numbers of fire and police departments, gas company, electric company, local ambulance services, etc.; charts showing locations of gas and water cut-offs and nearby hydrants; and a floor plan showing locations of sprinkler shutoff valves, main electric switches, main exits, secondary exits, fire escapes, shafts or other vertical openings, and storage area for combustibles.

Special equipment that should be available for custodians for use in case of fire should include: 50 or more feet of rope for roping off dangerous areas, flashlight with fresh batteries, first-aid kit, wrench for gas cut-off valve, gas mask, asbestos coat and helmet, and fireman's ax. ●

A Jarring Question

When Are We Going to Grow Up in Education?

J. H. HULL

In Journal of Secondary Education

WE are in the midst of a gadget and pattern fad.

The flexible scheduling people are asking us to invest large sums of money in buildings to fit flexible scheduling, which as yet has no proof of superiority to support it.

There is involved in flexible scheduling flexible use of people, complicated schedules, and employment of more nonprofessional support for the classroom teacher. Many communities are making the investment. Flexible architecture and flexible buildings for educational purposes presuppose the existence of flexible people who are going to use the facilities. Anyone experienced with human institutions, public schools for example, knows the tendency of people to work themselves into fixed patterns. Once the pattern is fixed, it tends to crystallize, even to ossify to the point where it requires great ingenuity to achieve even a minor change. The theory behind fluid educational space falls to pieces in the face of the human factors that seem to govern the use of space.

It is difficult to imagine a more unlikely prospect than the assumption that people will suddenly behave differently about building spaces in the future than they have in the past.

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We have many experiments like the ungraded, graded, the multigrade, and many varieties of each from selfcontained classrooms to the extreme of platooning in all grades by subject-matter area.

We have people who would die for the cause of ability grouping or homogeneous grouping, heterogeneous grouping, and many other varieties.

The gadgeteers are multiplying fast, too, with programed learning still the problem to be solved.

In spite of the fact that none of these patterns, methods, gadgets, or devices has proved itself intrinsically superior to all others, we go on selling our wares as though they were truly significant breakthroughs in learning.

Instinctively, or subconsciously, we all know that most of them have been tried before, will fade, and then be tried again. Yet we go on selling them to each other and to the public as though our lives depended on it.

We all know that schools are made of people; that the personnel give them quality if they are to have quality; that a classroom is no better than its teacher; and that teachers are not made by fads in method. We know that there is no statistical evidence to support either large or small classes and that, after it is all done, our measuring devices usually report no statistically significant difference.

We are aware that most successful experiments probably get their measure of success from what has come to be known as the Hawthorne influence. We know that, even where there is a statistically significant measurement at the conclusion of an experiment, the significance will in all probability be lost within a few weeks and that, if a test were given several months later, both the control group and the experimental group would measure about the same regardless of how they measured at the end of the experiment. In other words, those who learned the most forget the most and those who learned the least forget the least. This brings them to a similarity that makes it all significantly insignificant.

Then why all the fuss about methods and patterns of organization?

One answer is because a teacher, a school, or a school system has to have both an anchor and some guidelines for successful operation. Everybody who does anything has to choose, select, or stumble onto some method of doing it; and human nature being what it is, we tend to identify, label, and tout the method that proved successful *for us* in this particular situation.

Step by step we lead ourselves into thinking that a method is exclusive, when in truth most successful methods have a degree of similarity, although individual application may be unique.

And that leads us to a battle of words that goes on between those who are for and against the various methods.

This all leads one to ask, "When are we going to grow up in education?"

One answer might be, "When we begin to base our decisions on essential principles rather than auxiliary factors in the learning situation." ●

IN Denver, a five-year-old girl was the only child in her class who couldn't tie her shoelaces. She had a logical explanation: "I don't tie my own shoes at school because the boys tie them for me."—From *School Management.*

A Problem with No Solution?

Is There a "Right" Admission Age?

GLEN NIMNICHT, JACK SPARKS, and JAMES MORTENSEN

In Overview

THE problem of establishing a reasonable policy for first-grade admission has plagued school administrators, school-board members, and legislators for more than 50 years.

A policy under which Jimmy, because he was born a day or two later than his neighbor, Timmy, must start school a year later is unreasonable; on the other hand, a policy involving criterions other than age is necessarily based on the assumption that we can make a reliable prediction as to a child's probable success or failure in school.

At this time, we cannot make such a prediction, and, unless we drastically change our entire concept of success and failure, we will not be able to make such a prediction in the forseeable future.

Nevertheless, we are required to decide on what basis a child should be admitted to the first grade. Each school system can compile tables of experience which would facilitate such a decision, but these tables generally tell more about the problem than the solution.

That conclusion is based on a three-year study of variables that affect success in the first grade. The study began with pilot projects in three school districts and eventually involved more than 9,000 students in 84 Colorado districts.

During the first week of school in the fall of 1960, all the first-grade students in the cooperating districts took the Lorge-Thorndike Test of Mental Maturity. Further information about each child included: birthdate, father's occupation, and sex of the child.

At the end of the fifth six-week period, teachers reported on the success of the children by rating each as "above average," "average," or "below average" in success.

This rating was the first limiting factor in the study. The teacher's

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judgment of success, of course, was based on the child's ability to read and to perform other tasks expected of him. It was also based on intangible factors such as the child's appearance, his social adjustment, the personal likes and dislikes of the teacher, the teacher's judgment as to what was important, and the relative abilities of other children in the class. Though this limitation will be minimized as results of achievement tests are revealed, it continues to be a limiting factor because academic achievement represents only one measure of success. There is little hope of improving the criterions until educators can define more carefully what they mean by "success."

RESULTS OF STUDY

The following were among the results of the study:

In every school district and in every combination of districts involved in the study, there was a significant relationship between IQ and academic success in the first grade. Bright children did better.

Age at entrance proved to be a related factor in no more than one-third of the districts. It would seem that age at entrance is a factor in success in the first grade, but not a very strong factor in most districts, at least under present conditions.

In most districts, there was a significant relationship between the father's occupation and the child's school success. Children whose fathers were in the upper classifications tended to do better.

In most districts, there was a significant relationship between sex and success in the first grade. Girls tended to achieve at a higher level.

The results appear to show that the variable most commonly used —age—is the least reliable, and that IQ scores, the father's occupation, and sex could be used to predict success in the first grade. How does this work in practice?

The IQ of the child did show the strongest and most consistent relationship to success. When applied to individual cases, however, IQ's are always of limited value in making reliable predictions. Any entrance-age policy based on IQ would have to make provision for the school, the teacher, and the other children involved before a reasonable estimate of the probable success of a child could be made—even then, there would be a large probability of error.

The same kind of situation exists when we use the father's occupation as a predictor. Combining the IQ score and the father's occupation predicts success better than either variable alone; but, because there is a relationship between the father's occupation and the child's intelligence, they do not predict in combination as well as one might think.

A further question is: *Should* the father's occupation be considered? Despite the sound evidence of a relationship between this variable and success in school, charges of discrimination could be raised. Furthermore, it would postpone beginning school for some children who might benefit from being there for reasons having nothing to do with academic success.

Considering sex as a predictor, we find that girls, as a group, are more successful than boys, but this relationship by itself is not strong enough to make predictions.

On the whole, there is nothing in the study to suggest that a child suffers from delayed admission to school. On the contrary, the results showed *some* relationship does exist between entrance age and success suggesting that a child benefits from delay.

Possible exceptions to this generalization are the highly gifted children who learn to read before entering school. According to a study of 1,500 children made by Irving H. Anderson, 2 percent of children with IQ's of 140 or higher learn to read before they are three years old; 6 percent before they are four years old; and 20 percent before they are five years old. Another study by Anderson shows that 1 percent of first-grade entrants have already learned to read without formal instruction.

If we can assume that the samples of children in both instances are a fair approximation of the total population from which they are drawn, these studies highlight our dilemma. Children with IQ's of 140 or above represent less than 1 percent of the population, and 80 percent of this 1 percent cannot read when they enter school.

A problem certainly exists, but perhaps a solution does not. Some procedure must be followed for admitting children to the first grade, and a fixed entrance-age policy at least has the virtue of being easily and impartially administered—*if* such a policy is tempered by flexibility and informed professional judgment and augmented by a growing pool of information about the success of youngsters in the individual district.

The crucial question is probably not "On what basis should a child be admitted to the first grade?" but "What should we do with him once he has been admitted?" The real solution is to make the elementary-school program, scheduling, and teaching methods flexible enough for children to move through schools at their own rates. ●

AFTER Keith had been going to kindergarten for two months, a neighbor asked him, "How do you like kindergarten?" "Pretty well," he replied, "all except one subject. I just don't like the subject of 'resting.' "—From *The Christian Science Monitor.*

For the Second Graders

Arithmetic by Television

LYLA LYNCH

In The Arithmetic Teacher

THERE was a watchful concern when second-grade arithmetic was made a part of the Des Moines-Polk County (Iowa) educational television curriculum. Educators were aware that mathematics requires the development of ideas structured in an appropriate sequence which allows for continuous growth. Many people reasoned that children would be inattentive, that direct teacher-to-pupil relationships would be lacking, that the children could not use manipulative materials with the studio teacher (a technique desirable at this level), and that all would receive the same instruction with no provision for individual differences.

Despite these reservations, nearly 5,000 second-grade children in Polk County did view arithmetic television on a regular basis during the 1961-62 school year, receiving instruction during two 15-minute periods each week. This was about one-fifth of the total second-grade arithmetic time allotment. And the program is being continued this year.

There were several reasons why arithmetic by television was introduced. Research of achievement by local students had indicated that average and above-average students were not challenged by the existing mathematics program. The pace and motivational aspects of the textbooks left students with a conviction that mathematics was dull. Their disinterest and carelessness in mathematics caused the supervisory staff to realize that some changes in the elementary mathematics curriculum were necessary. The availability of television held promise of new opportunities.

Preparation for the television series required thoughtful planning. For example, since nearly a dozen different texts were to be used experimentally or as basic material, a set of well-developed lesson plans was needed to keep the classroom teachers prepared in advance to move ahead with their pupils in a coordinated manner.

A committee of classroom teachers and consultants laid out the scope and sequence of mathematical learnings for the entire year. Later other groups of teachers evaluated the lessons given and worked on developing future ones. The bur-

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den of coordinating the thinking of these groups and the final writing of the materials was the responsibility of the studio teacher.

SAMPLE TELELESSON

An idea of the result can be obtained by reviewing one telelesson:

The lesson was on the subtraction of numbers—those pairs of numbers not considered as the basic facts. After a brief greeting, the television teacher lead into the subject matter by giving a simple verbal problem. The problem was solved, using sticks to represent the counters used by the children. A second visual aid, consisting of felt numerals and felt board, was used to discuss the equation describing the problem and then to observe the importance of place value in determining the solution.

The next problem was printed in large letters and shown on the screen so that the children could read it to themselves as the teacher read it aloud. Counters and felt numbers were employed again in thinking about the problem and its solution.

This procedure was repeated on a third problem. The teacher then suggested that a problem could be solved without the aid of counters. She developed a problem on a chalkboard as she discussed it and then moved into a short summary of the material presented in the telecast. She concluded the lesson by giving one final problem as motivation for further class and individual work.

In evaluating the first year's program, it appears the most difficult problems were the physical viewing situations and the difficulties in correlating the TV lessons with conventional approaches. The problem of poor viewing habits was overcome when the classroom teachers focused attention on pupil responsibility for seeing, hearing, and retaining the information presented. After the children learned how to view, the teachers reported that attention was good and discipline problems no greater than in regular classroom situations.

The program served to improve the quality of instruction. Every teacher observed twice each week what was an effective approach to developing important concepts and skills. The television lessons were not supplementary; they gave attention to those very important learnings which were desirable for each and every child. The lessons provided each child with a close relationship to demonstration materials used in thinking about specific ideas. When a child had been fully absorbed in this initial presentation, the groundwork had been laid for his firsthand exploration and manipulation of materials under direction of his classroom teacher.

The final point of emphasis concerns enrichment. Every classroom cannot have as much equipment as *one* television studio. In the studio, the "teacher specialist" has time for research and the gathering of materials which bring to the classroom information and motivation needed by pupils and teachers. The real learning takes place at the close of the telecast when, under the guidance of their classroom teacher, the children become involved in experimentation, exploration, and discussion that has been motivated by the television lesson.

Many of the suppositions originally opposing the use of television proved to be unfounded. The rapport between the studio teacher and the classroom was exceptionally fine. Each child, no matter where he sat in the room, found himself in a front-row seat. The classroom teacher checked responses, observed the reactions of pupils, analyzed their answers, and took notes of points needing further development, clarification, or drill.

The classroom teacher is the important figure in the operation. When the televised lesson is over, the question of whether or not learning takes place is up to her. She adapts the content of the lesson to the abilities of her students, reinforcing and extending instruction or practice where needed. There is no ground for fears that a classroom teacher will become a mere baby sitter with instruction by television.

Near the close of the series, classroom teachers were asked to express their reactions to the series. Their attitudes were nearly 100 percent favorable. An overwhelming majority rated the teaching techniques as effective, the student reaction as interested or enthusiastic, and attention as good. Some said that it made teaching easier and learning more fun. Many expressed the feeling that better teaching of mathematics had resulted.

Probably foremost among the reasons for the success of the venture was the fact that the teachers and the studio teacher shared in planning the program. This teamwork between the studio teacher and the classroom teachers is important. Each part of the team learned to understand the goals and problems of the other. Each had a share in the planning and the evaluation of the program, and each gained an ever clearer understanding of what the lessons could and could not do for the children. ●

ELEMENTARY schools are most adaptable to television instruction because elementary teachers are more willing to accept TV's help and its potential, they are more creative in developing activities to supplement the learning process, many of them feel inadequate in specialized areas and readily accept the "intruder," elementary programs and schedules are flexible, and elementary teachers have consistently considered their job as something more than a dissemination of facts and information.—*Martin G. Atkins.*

How to Teach Safety

Laura Zirbes

In Safety Education

OUR goal is the safety of children, but other values of equal importance should not be neglected in attaining this objective. I want a *good* life, not just a safe one. We must keep in mind the concept of safety as a *means* to a good life.

In educating children to live safely, we will have to use all we know about good teaching. We must recognize safety as a vital aspect of experience. Therefore, we must be realistic in safety instruction. For example, we should not make a game of crossing the street—it is not a game but a very real problem. To say, "Now let's all pretend we're automobiles—step on the gas and we'll start off" is not valid. It is not realistic. Here, pretending is nonsense. Pretending is not good enough for safety education.

We don't want safety education that *trains;* we do want our children *educated* to safety. Safety education must not hold back on experiences, and it must teach independent choice. Too often we use practices that train but do not educate—practices that don't require any thought on the child's part. This avoids reality. Too frequently our lives are controlled by habit. But we have to educate children to expect life to be different. We must leave room for human intelligence, flexibility, and adjustment.

Before judgment matures, protection of children is more important than education. But the two cannot be separated, for along with protection there must be education for selfprotection.

Simply building fences to protect children is building for accidents and insecurity. We must provide children with opportunities to acquire experience and knowledge to live safely no matter where they are. We owe our children care that is educative and protective.

Harnessing fear—directing it into caution—can be effective in safety education. It would be inhuman to burn children to teach them about the dangers of fire, but the memory of pain can be wholesome. It can be used as an experience that will help the child in the future. Vicarious pain can help, too. With good teaching, children can gain experience from unfortun-

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ate accidents to someone else. We often miss such valid opportunities for educational guidance.

Safety education offers excellent opportunities for developing judgment, and we, as adult educators, must learn to withdraw so that the child can act for himself. We must provide guidance that does not hover. Children need experience in living. Because it is so necessary that the child be able to carry over and apply what we teach him, we must develop judgment and self-guidance on the child's part.

Also, for safety education to be valid, we must develop a social consciousness and a concern that is a part of maturation. Accidents are caused by people who are infantile in their safety concern for themselves and forgetful and unmindful of others.

We tend to trust rules too much. No rule is 100 percent valid and it's dangerous to feel absolutely safe because we are following a book of rules. Further, blanket taboos are not valid. They give us a dangerous selfconfidence in our guidance and can cause a fixed irrational fear as fear-ridden adults project their fears to children.

One example is the parent who had a hard and fast rule that her children were never to touch a rope. "You can get hung with a rope," was her explanation. The children, however, might need to use a rope one day to save a life or merely to secure a boat against floating away.

At the other extreme, there are people who like to take risks. These people lead dull, unimportant lives and attempt to compensate by living dangerously. The solution lies in helping the children to live zestfully and to develop good judgment. Wholesome fear of consequences is a deterrent to impulsive action which may lead to harm; but fearbound living forfeits the freedom and much of the fullness of life's adventure.

We must look for the total effect in our safety-education programs. The long-term influence on outlook and personality is part of the effect. We must test our methods and procedures constantly for validity. We must ask not only, "Is he safe?" but also, "Is he increasing in selfreliance and judgment? Is the experience challenging and zestful? Did it give him a chance to gain insight and act on it?"

We must use safety practices as education. Playground clean-ups, student patrols—these can and should be educative experiences. Safety education begins at exactly the same time that children begin having experiences that have hazards in them.

Let us keep in mind that validating our practices means testing them. We must check and recheck the safety-education experiences provided our pupils in order to ascertain validity. Our children are growing up in an anxious age. It is our debt to them to provide them with protection which is combined with education that will teach them to protect themselves. ●

Questions Concerning Applicability

Is Linguistics the Key to Language Instruction?

JUNE VERBILLION

In Chicago Schools Journal

RECENTLY a teacher friend of mine told me of an interview she had in applying for a new position:

"Everywhere you go, it's the same refrain: 'Have you had a course in linguistics?' And then another question: 'Can you teach it?' It's the second question that bothers me. I can answer yes to the first, but I don't like the way the second question is phrased. I think the interviewer should be asking, 'Which linguist would you follow if you were to use linguistics in the classroom?' "

After an hour of discussion, we concluded that, just as star differs from star in glory, so does linguist differ from linguist in his claims for the magnitude and scope of his discipline.

Some linguists, with what one commentator has labelled "graceless and imprudent behavior," have been aggressively tarring every non-linguistics-oriented teacher in the field of language arts. Although they are unable to demonstrate conclusively the applicability of many of the findings of linguistic research to the teaching of language skills, they insist that the teacher who does not plan instruction around these findings is doomed to fail.

These watermelon-vine linguists have spread to cover every phase of language arts from speaking to reading, from "auditing" to writing. Journals, conventions, and summer institutes provide uncritical audiences ready and waiting for the new doctrine.

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What the uncritical fail to realize is that much of what is now called linguistics is an experimental discipline, that many of its findings are tentative and incomplete, and that the immediate applicability of those findings to classroom practice is not at all clear or certain. Premature adoption of linguistics-oriented approaches to the teaching of language skills may do untold harm to language instruction.

There is not agreement even among the "pure" linguists—those who do the actual research into the nature of language. The best linguists have done their work modestly and put forth their claims quietly and with professional decorum.

There's an important distinction between "pure" or working linguists, those who do actual research in language, and selfstyled linguists who insist that the findings of linguists indicate the need for drastic changes in the language-arts curriculum.

Consider the following as an example of the kind of statement which has serious and potentially harmful implications for teaching English:

> (The forms of standard American English) "express what its users wish to express; its words mean what its users think they mean; it is correctly written when it is written by those who write it, and correctly spoken by those who speak it. No prim and selfconscious hoarding of the dead fashions of a superior class gives it its power, but its negligent use by minds intent on stubborn and important problems. There is no point in tiresome carping about usage; the best thing to do is relax and enjoy it."

Turning from such extremist statements, the linguistic buyer, with an eye to quality, may reject certain package deals but make, in a discriminating manner, a few purchases.

First, he will re-examine his attitude toward change in language. He has probably always operated within a framework which, at least implicitly, assumed that language is living and as such is subject to growth. As with a child, the only way to keep it from growing is to kill it. Change is inevitable, gradual, systematic. Even the pre-linguistics teacher for the most part was aware of this growth, if only through the avenues of the dictionary and the language-arts textbooks.

It will not be easy for the lion of precision and the lamb of toleration to lie down together. But at least one "judicious" statement is available to us. Otto Jespersen put it very well:

> Most linguists are against any attempt to apply a logical standard to language. Language, they say, is psychology, not logic; or "language is neither logical nor illogical, but a-logical." That is to say language has nothing to do with logic. To many philologists the very word, logic, is like a red flag to a bull. . . . It would be surprising, however, if language which serves to express thoughts should be quite independent of the laws of correct thinking.

Admitting, then, that the teacher of language arts must constantly realign his ideas regarding the form that language takes according to current usage, let him still insist on a matter of content which makes sense under critical scrutiny. While de-emphasizing the laws of usage, let him rededicate himself to the laws of correct thinking and to clear expression of thought.

SPEECH, WRITING DISPUTE

In addition to the problems of change in language and the relationship between language and logic, another area in which some linguists adopt extreme positions is the relationship between speaking and writing. But if properly considered, there is something of value in this area for classroom teachers.

The relationship between speaking and writing is a pivotal point for all linguists, who hold that language is primarily speech and that the written word, therefore, is of necessity secondary. Though it is true there are millions who can speak but cannot write, this fact has little bearing on the function of the schools. Schools are charged with responsibility to develop the ability to write in all pupils. Written words are the preservers of the best spoken words, and, although we speak more than we write, our writing is, or should be, more exact than our speech. In bridging time, distance, and dialect, writing actually is superior to speech.

In their zeal for exultation of the spoken word, linguists should exercise care that they do not demean the written word; in their enthusiasm for precision and exactness, English teachers must vigilantly question the red marks they place on themes. Are these marks a matter of personal preference or are they justifiably placed there to indicate a spot at which communication bogs down?

A TEACHABLE GRAMMAR

Most teachers of the written arts are awaiting a new *teachable* grammar. Most would agree with Sumner Ives that "the major tool which linguists can give to the teachers of composition is a true and accurate description of the forms and constructions which are used in English for the expression of grammatical meaning, in short, an English grammar."

It will be a happy day when students will be able to become acquainted with the inner nature of their mother tongue, of their own American English. You can't discuss a student's use of language without some set of grammatical terms and distinctions. At present, however, there appear to be at least three grammatical systems in use: the traditionalist grammar of Sweet, Jespersen, and others; the structuralist grammar of Fries, Hill, Sledd, and others; the generative grammar of Chomsky and others.

Summer and in-service courses for teachers must heed this plea for plurality and not present one system to the exclusion of all others.

Another point to consider is the normative position of the English teacher. Here again all shades of opinion are available, ranging in one linguist's classification from snobs to slobs. The snobs would hold that "the chastity of a singular subject is violated if it lies down with a plural verb," and the slobs would hold that any correction of a student "involves an intrusion of his privacy." For the first group, emphasis is placed on the practice of canons mastered by ardous self-cultivation and discipline; for the second group, "acceptable" usages are arrived at as automatically as breathing.

A special problem in dealing with usage is the presence of shibboleths. Language is social. It has obligatory conventions just as other social institutions. The conventions change from time to time, but while in force they are obligatory.

One need not be a purist to hold

that one's acceptance in society is often determined by his ability to avoid "I seen," "you was," "he don't". The linguist may point out that *saw* is no whit more logical for the past of *see* than *seen;* that *you,* having a singular sense, really requires a singular verb; that the third person singular is only arbitrarily bound to an "s" on a verb.

GIVE STUDENTS THE SKILLS

The fact remains that, as educators, if we are not giving the students the skills they need for economic competence, we are fooling them. The community desires that the language-arts teachers "upgrade the level" of the students; a receptionist, for example, would be expected to avoid the locutions mentioned, and, in a very real sense, a personnel director would use them as shibboleths to test verbal skills needed in employment.

English teachers must assume the major role of helping the youth of this country learn to use the English language effectively, and this includes using the accepted forms of the English language. Nonstandard English deserves attention, but it is not the subject matter of language-arts instruction.

The weakness of the past lay not in its concern with how we ought to speak, but with its misplaced zeal in deciding arbitrarily what good English is and in its application of the law, not the spirit of standards of elegance, precision, and good taste in language.

We have been advocating critical thinking for some decades; let's use our evaluative criterions on the linguistic discourses. Facing up to the ultimate implications of what some linguists are saying, we may be led to ask some embarrassing questions. By helping them to defuzz their thinking, we will be helping them to help us; through asking the right questions, we will be catalysts stimulating them to further efforts in recording and analyzing current speech forms.

Standards are subject to change, but standards are perennial requisites of all teaching. A linguist who wanders afield from his primary duty of describing speech forms and their development into a subjective pontification regarding content of language-arts instruction is to be suspected. His siren song may be hard to resist, but it must be until examined thoroughly.

The science of linguistics does have much of value to the classroom teacher. Yet, there is no certainty, even with the linguists, that all the findings of any or all schools of linguistic research offer the basis for a complete reorganization of the language-arts curriculum.

Linguistics, like all sciences, operates on a set of assumptions about the nature of language. None of them has been finally formulated. The science itself is in a state of flux. If serious linguists themselves admit this, the implication for the teacher of language skills is obvious: move slowly and carefully. Do not mistake hypotheses for laws. ●

History of Phonics and Word Method

NILA BANTON SMITH

IN the present controversy concerning the teaching of phonics, an examination of developments over the years and a presentation of some valid facts should aid in clarifying the issue.

The data on which the following is based, were gathered from reading materials used in America from 1607 to the present. The materials included: hornbooks, spellers, readers, courses of study, yearbooks and proceedings of national societies, articles in periodicals, histories and diaries, professional books, teachers manuals, investigations, and reports and bulletins of school boards, commissioners of education, and superintendents of shools.

In historical research there is always danger in setting dates of periods. There are overlappings and mergings; no period of emphasis breaks off sharply at a certain date. Despite these difficulties, approximate dates are set to give some idea of the duration of periods in which phonics or word method assumed special significance.

1607–1776: Spelling and Memorization Characterize Early Instruction.—Neither phonics nor word method was used in teaching reading in colonial schools. Children learned ABC's and spelled words, but text in the New England Primer was usually read as a result of memorization.

1776–1840: Phonics Introduced.—Strong emphasis on national unification caused Webster to seek some means of unifying the idea of having all school children learn to sound the letters of the alphabet, hoping this would cause young Americans to pronounce words correctly. Webster's *Blueback Speller* provided for teaching the sounds of letters. His book was used widely in teaching reading throughout this period.

1840–1880: Word Method Introduced.—American educators, returning from visits to Prussia,

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were enthusiastic about procedures in which children were presented with whole new words at the beginning of reading instruction, and they criticized methods in use in America. The word method was then introduced. Josiah Mumstead's *My Little Primer,* appearing in 1840, was the first reading book based specifically on the word method. John Russell Webb published a primer, *The New Word Method,* in 1846. Other word-method readers followed. While some schools continued with the ABC-phonic method, the new word method was used widely up to 1890.

1880–1920: Phonics Re-emphasized.—About 1890, a growing dissatisfaction arose because many children were not able to read well in the upper grades. This difficulty was blamed on the word method. Several authors of reading texts took the opposite position of advocating elaborate, synthetic phonic systems in which the child began immediately with practice on sounds of isolated letters and the "family words" (hall, ball, tall, etc.). The word series, Bacon readers, and Gordon readers were highly popular. All based their methodology on the elaborate, synthetic method of teaching reading.

PHONICS ABANDONED

1920–1925: Phonics Abandoned.—Standardized silent reading tests were developed between 1916–20. Wide administration of these tests revealed that thousands of children were not reading well and that most of those who could read were deficient in ability to get meanings from printed text. Phonic methods were blamed. The new emphasis was on reading silently to get the thought. Phonics was looked on as outmoded. Experience charts were introduced. With the charts, children were initiated to reading instruction by reading, as a whole, a small unit of text they had composed, after which the teacher called for the reading of sentences, phrases, and words as she broke the composition into smaller parts.

1935–1955: Phonics Comes Back with Supplements.—Complaints arose again concerning large numbers of children who weren't learning to read as well as they should. Phonics was reconsidered as a solution. Investigations had been conducted showing that phonics was effective in teaching reading. Phonics began a gradual comeback, supplemented with picture clues, context clues, structural analysis, and dictionary skills. Charts continued to be used for initial reading instruction.

PRESENT STATUS

1955–1963: Present Status of Phonics and Word Method.—Criticism and controversy entered with the publication of Flesch's *Why Johnny Can't Read,* in 1955. It has continued and has been intensified with recent criticism. Critics intimate that the schools are now teaching by the

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word method and that all the words children know are those memorized from basic-reader vocabularies. They claim that developing ability to read is degenerating in American schools and that the only solution is to return to phonics.

There is evidence that phonics is being taught throughout the United States, that the percentage of reading disability is much lower than critics state, and several studies reveal that children are reading better now than formerly.

A great variety of phonic approaches are in use. No single one has been proved to be best. Inquiry and experimentation are rampant. ●

The Phonics Controversy

- Women are prominent in the reading reform movement. Having taught their own children a speaking vocabulary of many thousands of words at home, starting from scratch, they refuse to accept as the reward of a year's instruction at school a reading vocabulary of 200 or 300 rote words. And all the excuses and double talk of some top educationists cannot persuade them that alphabetical English should be taught like pictographic Chinese . . . (The) method of word recognition should have no place in serious pedagogy. It is fatal to good writing and spelling. The accuracy needed to write the letters clearly and to spell correctly, which automatically follows phonics, was lost when the look-say configurationists took over.—*Watson Washburn,* president of the Reading Reform Foundation.
- Phonics is an extremely important step in the reading process . . . (It) is useful, important, and necessary in a good reading program, but there will always be times when some words must be taught as whole words. To recognize this is to recognize both the nature of our language and of phonics.—Dolores Durkin in *Phonics and the Teaching of Phonics.*
- The old system of teaching reading isn't working, but there is no simple solution. There is no one method of teaching reading that is clearly superior to other methods, although it is probably true that phonics has been relatively neglected in recent years.—*John W. Gardner.*
- The educational world would be better off if peace could be negotiated in the reading war, for until it is, too many energies are being drained away from the important work of teaching school and teaching reading.—*Earl H. Hanson.*

Advantages, Evaluation, and Suggestions

Team Teaching: Fundamental Change or Passing Fancy?

MALCOLM P. DOUGLASS

In CTA Journal

DURING the past several years, the concept of team teaching has become increasingly attractive. The surge of interest has prompted many school people to embark on their own programs—sans outside financing and often with little, if any, assistance from those experienced with team teaching.

Many of the team-teaching programs are soundly conceived and will be well executed. However, the bandwagon is rolling and many people, in eagerness to get aboard, are lumping virtually any departure from the conventional school program under the term "team teaching." A simple cooperative teaching plan for two or three teachers, for example, becomes team teaching. A nongraded or a continuous progress plan for an elementary school becomes team teaching. Departmental meetings—hardly new at the secondary level—become team teaching.

What, then, does team teaching look like in action? What are its presumed advantages? What evidence do we have of its successes and failures? And what should school people consider as they contemplate the values of team teaching for their own school?

Malcolm P. Douglass is Professor of Education, Claremont Graduate School, California. Reported from the CTA Journal, *LIX (March 1963), 26–29, 55–56.*

The team-teaching approach requires three organizational elements within a school: a distinct student group, a small faculty group with complementary talents responsible for teaching the student group, and certain persons who assist the teachers and students. The manner in which these elements interact can vary widely. It is impossible to describe a "package" arrangement which can be applied anywhere and everywhere.

Speaking in quite general terms, teaching teams, in those schools with which I am most familiar, are comprised of from 120 to 180 pupils at the elementary level and from 90 to 180 students at the secondary level. Teacher-pupil ratio is about the same as with conventional approaches—30 or 35 to 1. Elementary teams are composed of from four to six teachers; secondary teams of from three to six teachers. Each team has a leader either elected by team members or selected by administrators.

The third element—those people assisting students and teachers—consists of teacher aides, auxiliary teachers (at the elementary level), and selected citizens who can make specialized contributions to the instructional program. The teacher aide is a noncertificated person drawn from the community who works at the direction of the team in a part-time capacity. The auxiliary teacher is a certificated person who provides 20 days of released time for members of the elementary teams for planning, research, visitations, and other activities.

Both elementary and secondary teams draw extensively on talented members of the school community at various times during the year. Local citizens may assist with some specific aspect of the instructional program, such as delivering a talk or giving a demonstration; they may lead student study groups during or after regular school hours; or they may assist in remedial work over an extended period of time where individual attention is the prime need of the student. Talents represented in the community have been found to be varied, useful to the school, and freely given.

Since team teaching is nothing more than the total pattern of educational experiences planned for the students on the team, the quality of those experiences obviously cannot exceed the talents which exist among the team teachers and their nonprofessional associates.

It is, therefore, in large measure true that there is nothing in conventionally organized schools which precludes teaching students in ways associated with the concept of team teaching.

PRESUMED ADVANTAGES

Since team teaching seeks to improve education across a broad front, the hypothetical advantages attributed to it are global in nature. It is hypothesized that the education of youth will be enhanced because the teaching team approach will encourage, to a greater degree than usual, the following things:

Practical and effective in-service education through frequent team meetings.

Marked success in inducting new teachers into school systems by using interns as team teachers.

The use of aides to release teachers from routine duties.

Teacher involvement in planning and developing curriculum because of team structure.

Recognition for outstanding teachers through selection as team leaders.

Ability to form large and small groups for instruction, from one teacher to one student to one teacher for 200 students.

At the elementary level, teacher exchange permits exploiting teachers' special talents, knowledge, and training.

Improved guidance from the planned exchange of information about students and the atmosphere of fellowship within the team.

Increased interest and involvement of parents because of their children's common experience.

Improved climate of motivation because of the accent on individual identity and team spirit.

Greater student interest, due to varied groupings and presentations.

The best use of teacher talent, which should yield the highest quality of instruction.

Improved correlation of subject matter

because of cooperative planning in team meetings. And, because teams can be kept together for more than one school year, the organization to develop sequences of content.

Through team leaders and team meetings, the identification and use of talented citizens and other educational resources of the community.

No simple means exist for confirming these hypotheses. Further, most of the projects in team teaching supported by foundation grants have provided a minimal evaluation program. Rather than formal research, field trial experience has been deemed satisfactory as an indicator of success or failure. Such evidence should not be depreciated entirely—just taken with a grain of salt. The condition itself suggests the need for more controlled research before hasty judgments are entered vis-à-vis the future and worth of team teaching.

EVIDENCE OF SUCCESS

Even within these restrictions, some reasonably objective evidence is becoming available. Studies of the teaching-team project at Claremont, California, have involved attitudes and opinions of people in team teaching. Comparative analyses have been conducted in school achievement. Attitudes of elementary and secondary students have been probed, and several of the assumptions listed above have been or are being scrutinized.

Speaking generally, those who have participated directly in the program support the concept enthusiastically. Parents of children in teams and administrators of teams have shown the strongest desire to continue the program, followed by team teachers and then by team students. Teachers who have observed but not participated are inclined to wish to remain out of the program—a tendency which has been a constant factor over the extent of the study.

Can a team-teaching program survive without outside financial assistance—as through a financial grant? Early in the Claremont project the feeling was strong that outside assistance was necessary. The feeling now is that the additional support can and should be provided at the local level.

Teachers participating as members of teams are consistent in reporting that the single area most affected is the team teacher's own pleasure and satisfaction in teaching. The impact on curriculum development, guidance functions, student motivation, etc., while positive, is not as important, in the thinking of the teachers.

A majority of team teachers listed the following factors as indispensable to an adequate test of team teaching: time for teacher planning, active administrator support, agreement among team teachers on standards, teachers with enthusiasm for team work, the help of a team leader, and clerical assistance for team teachers.

Those factors believed unimportant in testing team teaching included: students with above average ability, time for conferences with individual students, continuation of the same group of students for at least two years, students with seriousness of purpose, smaller than average class size, frequent meetings with parents, and students enrolled with team teachers for at least four of their classes.

Results on all aspects of this opinion and attitude surveys have been remarkably consistent over the past three years.

To date, four studies using standardized tests of achievement have been conducted at the high-school level. Each study compared a control group with an experimental (team) group. In every study, differences on total scores and subscores on the standardized tests were not found to be statistically significant. But it may be reasonably argued that standard tests measure a very limited range of desirable achievement.

The nature and significance of students' attitudes toward team teaching are currently being explored. Student responses range from sheer delight to utter boredom. The small sample and the range of responses precludes generalizing until more data is obtained. However, the nature of the responses at the uppermost levels has led to a reexamination of the kinds of team models most appropriate for that age.

It is important for us to realize that, despite the research now being conducted, we do not yet have enough information to say yea or nay to team teaching with sufficient authority to make it stick.

But from the experience of those who have participated in team-teaching projects, we can glean the following guides for those who find the concept so interesting they wish to start their own project:

1. Study the situation. Read what people have to say who have had experience with various kinds of team-teaching programs.

2. Select only those teachers for the team who really want to be on it. Then provide the additional indispensable elements for successful team operation: time for teacher planning, active administrative support, agreement among team teachers on standards, the help of a team leader, and clerical assistance for team teachers.

3. Approach team teaching with an experimental attitude. Be willing and able to judge the quality of what is happening within and to the team. Cultivate imaginative ways to solve old problems in curriculum, guidance, and all other aspects of the school's work.

4. Keep parents and others who have a stake in the experiment reasonably well informed.

5. Provide some formal means of evaluating the experiment. Do not rely exclusively on existing standard tests; employ creative approaches.

If these criterions cannot be met, it is probably better to leave experimentation to those in a better position to give it a fair try. ●

With Education in Washington

THE EDUCATION DIGEST WASHINGTON BUREAU

Health vs. Education.—"Nobody ever died of a split infinitive," USOE Commissioner Francis Keppel said wryly, answering a questioner who wanted to know recently why health legislation is more popular with Congress than education bills. Only a few days before the Commissioner spoke, Congress had again demonstrated its preference by moving ahead a bill to aid medical, dental, and nursing schools and holding back the Administration's proposals to aid colleges and universities and their students.

The pressure point, as usual, was the House Rules Committee. The Commerce Committee, which handles health legislation, had submitted its trimmed-down version of the Administration's original bill, which includes loans for students of medicine, dentistry, and osteopathy. Rep. Howard W. Smith (D-Va.), chairman of the Rules Committee, professed concern that some portions of the bill might overlap or conflict with provisions of the Administration's omnibus education bill, still in the hands of the House Education and Labor Committee. The Rules Committee thereupon voted 7-7 to defer the medical school bill.

The tie vote resulted when the Chairman and Rep. William Colmer (D-Miss.) voted with the Republicans, as is their custom, in the absence due to illness of Rep. Ray J. Madden (D-Ind.), an Administration supporter. Soon afterward, Congressional leaders met secretly at the White House to map a strategy that would move the medical-school bill. The price paid, apparently, was indefinite postponement of efforts to enact the Administration's package of proposals aiding colleges and universities.

Rep. Edith Green (D-Ore.), who had introduced her own college-aid bill in hopes it would be more acceptable than the Administration's, then appeared before the Rules Committee to plead for release of the medical school bill. When twitted by the Chairman for her seeming change of heart, she would say no more than, "I'm a team player." As soon as Rep. Madden returned to Washington, the medical-school bill gained permission of the Rules Committee to move toward what is expected to be swift enactment.

Why Health?—This episode is merely a more dramatic example than most of the long-standing Congressional preference for improving the nation's health rather than its education. What's the explanation? Few Congressmen are physicians; quite a few have been educators. The medical profession's lobbyists are regarded as self-seeking by most Congressmen, while education's spokesmen are considered well motivated, though demonstrably less potent.

One reason is personal and accidental. Chairman of the Senate Labor and Public Welfare Committee is Sen. Lister Hill (D-Ala.), one of the small inner circle that rules Congress. His Committee handles both health and education legislation, and he is also chairman of the Senate Subcommittee with jurisdiction over the HEW Department's budget. Sen. Hill, who served for several years, decades ago, on the school board of his native Montgomery, is not inhospitable to education legislation. He worked closely with his protege in the House, Rep. Carl Elliott (D-Ala.), to enact the NDEA in 1958.

But he is the son of a country physician and he was named by his father for the distinguished British surgeon, Joseph Lister. Advancement of medical research and construction of hospitals and health facilities in rural communities are Senator Hill's passion. Were he not in his commanding position due to the seniority system, health legislation would not enjoy quite so much of its current favor. Medical research would still be popular in Congress, nevertheless. It will always be more popular than education, because it is considerably less controversial.

Church-state questions do not bedevil public-health bills in Congress, though a few zealots object to government grants to institutions run by religious orders or owned by churches. Until recently, civil-rights groups have tacitly kept silent on the subject of the now-unconstitutional "separate-but-equal" provision written into the Hill-Burton hospital construction legislation by the senior senator from Alabama.

Moreover, good health is an uncomplicated end to be sought, in comparison with good education. Laymen do not argue the relative merits of live-virus and killed-virus vaccines, to cite a medical judgment with major implications for public policy. They simply want disease eliminated, in whatever way the professionals think best. But laymen, especially parents, do not hesitate to debate ungraded schools, foreign language in the elementary schools, or teacher certification. And this is proper. Control of the schools rests with the voters much more directly than control of the health departments.

Favorable Factors.—There is, of course, growing recognition in Washington of the supreme importance of education to national growth, power, prestige, and survival. If race, religion, and the Rules Committee were not the obstacles they are at present, education legislation would enjoy the support of a majority of both Houses of Congress. Fortunately, these obstacles are not permanent.

One USOE official who deals directly with Congressmen, for example, is already noting the effect of rising numbers of Southern

Negroes who are registering to vote and casting their ballots. Even a few thousand additional voters can be crucial in many Southern Congressional districts where relatively few participate in elections. This trend will continue, and education legislation will benefit.

Reapportionment of the state legislatures, which has proceeded swiftly in the wake of last year's historic Supreme Court decision, is another trend that will eventually —and before too long—alter Congressional attitudes on education legislation, as Congressional districts are reapportioned by the new legislatures to redress the urban-rural balance. Still another favorable trend is the growing realization of the generation sent to college by the GI Bill in the late 1940's that it may not be able to finance higher education for its own boys and girls.

Thus, time is on the side of the educators. After the 1964 elections, if he is reelected, President Kennedy may feel free to push through an education bill opposed by his church. Despite his public stance and his demonstrated concern over juvenile unemployment, the President has thus far failed to give education the precedence accorded to foreign aid or tax reform, to cite only two examples.

Another favorable factor is the growing possibility of Congressional reorganization of its committee structure before too long. Seeking to humble the Chairman of the House Education and Labor Committee, Rep. Adam Clayton Powell (D-N.Y.)—not so much for his personal peccadillos as for stating publicly that these were shared by his colleagues—the House recently officially considered establishing separate Committees on Education and Labor.

When Congress next gets around to reshaping its committees, which were last changed in 1947, this Committee will undoubtedly be affected, especially if Rep. Powell is still its chairman. One suggestion is that the House Interstate and Foreign Commerce Committee, which handles health legislation, be changed to a Committee on Commerce and Labor while the Education and Labor Committee becomes a Committee on Health and Education. Such a change would be a boon to the HEW Secretary, who now reports to more Congressional committees than any of his colleagues in the Cabinet, and it could help education's cause.

Education already deserves, and some day may even get, a committee of its own. When his appropriations, inadequate as they may be, are added up, Commissioner Keppel already has a budget larger than that of either the Commerce or the Labor Departments.

Taxing Education.—One type of aid-to-education bill that is currently very popular on Capitol Hill, especially among conservative Congressmen, is the proposal to adjust federal income taxes for parents with children in school or college.

More than 100 of these bills have been introduced in Congress this year. They are of three varieties:

—Tax-deduction bills would permit taxpayers to deduct tuition or other education expenses from adjusted gross income. This means that less income would be taxable.

—Tax-exemption bills would grant taxpayers additional exemptions—$600 up to $1,200—for dependents who are full-time students. Present law permits parents to keep the $600 personal exemption as long as their child remains in school or college, regardless of his own earnings or tax status.

—Tax-credit bills would permit taxpayers to deduct some portion of college expenses—generally 30 percent is suggested—from his federal income-tax bill.

According to the American Council on Education, a family with an annual income of $6,000, which is close to the national average, would save $320 under the tax-deduction bills, assuming that tuition is $1,600, but would save only $60 if tuition is $300. An additional personal exemption would save this family $120. The tax-credit bills would save $480 if tuition is $1,600 and $90 if tuition is $300.

From 1955 to 1959, the Council supported the tax-credit proposal. Since then, dissension in its ranks has caused it to take no position on the issue, even though its popularity has been increasing among Congressmen. Private colleges generally favor some form of tax relief, which may enable them to raise their charges. Public institutions oppose these bills for precisely this reason. They also argue that college costs can be best kept down for moderate-income families by larger subsidies to public colleges, and they point out that all the tax proposals would aid mainly the prosperous families that would send their children to college, regardless of the cost.

Treasury Department and Bureau of the Budget officials also express their concern for the large family of moderate means with bright children. They contend that the Administration's programs of generous student loans and other forms of aid, plus subsidies to private and public colleges alike, are the best way to help these families give children a college education.

Tax bills are favored by many Congressmen as a way to aid church-related colleges without encountering Constitutional barriers, since the aid would flow to the parent rather than the institution. Rep. James J. Delaney (D-N.Y.), who blocked the Kennedy Administration's first education bill in the Rules Committee on church-state grounds, is sponsoring a bill that would provide tax relief for parents with children in private elementary and secondary schools.

Despite the large number of tax-relief bills introduced and the fact that tax legislation is the major issue of the current Congress, it is doubtful indeed if this devious way will be chosen to aid education. ●

State-Wide Sanctions

MEMBERS of the Utah Education Association (UEA), in a protest against the failure of the Utah legislature to pass a program they felt necessary for adequate support of the state's schools, voted in March to interrupt all contract negotiations with Utah boards of education for the coming school year.

The UEA, working cooperatively with the Utah State Board of Education, the Utah School Boards Association, the Utah Congress of Parents and Teachers, and the Utah Society of School Superintendents, had been pressing for a $24 million education bill. The state legislature passed a bill providing about $11.6 million.

The sanctions vote of the UEA called for immediate interruption of all negotiations looking toward contracts for the 1963-64 school year, called on individual members to refrain from entering into agreements outside the negotiations being conducted by the association, and asked the NEA to inform its members of the unsatisfactory conditions in Utah and to urge them to refrain from seeking employment in Utah schools until the controversy has been resolved.

Technology Study

HOW teachers can best use the new technology in the classroom is the object of a two-year study to be made by the American Association of Colleges for Teacher Education under a contract with the U.S. Office of Education.

The $215,000 project will be headed by Herbert F. LaGrone, director of teacher education at Texas Christian University, who will take a two-year leave of absence from the university.

When the study project ends in 1965, it is expected to produce recommendations on two major questions: How can colleges and universities best use the new technological developments to teach future teachers? How can classroom teachers themselves make best use of technology in teaching their students?

Six Channels for MPATI?

THE Midwest Program on Airborne Television Instruction (MPATI) has requested the Federal Communications Commission to increase its transmitting channels from two to six.

If the six UHF channels sought for operating on a regular basis are granted by the FCC, member schools and colleges can look forward, MPATI officials say, to: tripling of the number of course offerings; scheduling of many repeat lessons to accommodate local school schedules; year-to-year continuity of offerings through various grade levels; special professional education material beamed to teachers via TV receivers in their own classrooms or study rooms set aside for them during the day or after school hours; and transmission of adult education and extension courses.

MPATI officials hope that the six channels will be in operation beginning in September, 1965, if approval is received.

MPATI is now completing its second full school year of broadcasting regular courses of instruction, beamed from a high-flying aircraft in Indiana, to hundreds of schools in six midwestern states. Samuel M. Brownell, superintendent at Detroit, Mich., was recently reelected chairman of the board of MPATI.

Textbooks in Rhode Island

A LEGAL showdown on the decision of Rhode Island to grant textbook aid to pupils of private and parochial schools is expected during the 1963-64 school year.

The new aid bill, signed by Governor John H. Chafee in March, would lend natural-science, mathematics, and foreign-language textbooks free of charge to the students of the nonpublic schools. The books would have to be picked from a list of recommended textbooks prepared by William P. Robinson, state commissioner of education.

The Rhode Island affiliate of the American Civil Liberties Union has announced plans to test the constitutionality of the law in the courts. The Protestants and Other Americans United for Separation of Church and State also has announced plans to study the law "very carefully" for possible support of a court fight.

Of the four Supreme Court cases which have dealt with state aid to parochial education, none of these are said to apply directly to the case at hand.

Gross on Education

CALVIN E. GROSS, who assumed his duties as the new superintendent of New York City schools in April, believes the schools should stop gearing its whole enterprise to the average student.

"The average student is entitled to proceed at his optimum pace," he says, "but so are his nonaverage classmates. By developing a better program at both extremes of the ability scale, we can obviously provide a better grade of education for the average student as well."

For the able, Gross suggests increasing the number taking college work in high school and striving to cut two years off college preparation for the most able.

For the slow learners, Gross would insist on mastery of the fundamentals before going on to study something else. "This means," he says, "insistence on reading as the fundamental tool for learning all other subjects. What we should do, as soon as a child slips below a certain achievement level in reading, is put him in a class that's half as big and double the time he spends on reading. If he continues to slip, cut the class size and increase the time once again, because he has to learn to read. If he can't read well, he'll find locked doors the rest of his life."

Edpress Unesco Representative

BEN BRODINSKY, editor-in-chief for the Croft Educational Services, New London, Conn., has been named to the United States National Commission for Unesco. Mr. Brodinsky will be a representative for Educational Press Association of America (Edpress), of which he is president-elect. Edpress has worked with Unesco on many projects, including the publication of an international listing of educational periodicals.

Citizens Conference

FAR greater investments must be ade in the public schools" was e one point agreed on by speakers at a conference sponsored by the National Committee for Support of the Public Schools, held in Washington, D. C., in April. They disagreed, however, on the means to achieve the rise in funds —some favored federal aid, some opposed it.

The Committee was organized last year by business men, labor leaders, professional men, farm leaders, and others to generate community action for more financial support for public schools. Mrs. Agnes E. Meyer, Washington, is chairman of the Committee.

Speakers at the conference included: HEW Secretary Anthony J. Celebrezze; former HEW Secretary, Marion B. Folsom; U.S. Commissioner of Education Francis Keppel; Secretary of Labor W. Willard Wirtz; T. V. Houser, chairman of the Committee for Economic Development; and Governors Edmund G. Brown of California, Terry Sanford of North Carolina, and John H. Chafee of Rhode Island.

New Science Magazine

A NEW magazine, designed especially for elementary-school science teachers, will be published by the National Science Teachers Association, starting in September.

The new magazine, to be entitled *Science and Children,* will be published eight times during the school year. Glenn O. Blough will be the publication's Advisory Board Chairman.

DATES OF THE MONTH:

May 3-7, American Association for Health, Physical Education, and Recreation, Minneapolis, Minn.

May 19-22, National Congress of Parents and Teachers, Miami Beach, Fla.

DATES OF THE COMING MONTHS:

June 25-28, Commission on Teacher Education and Professional Standards, Columbus, Ohio.

June 30-July 5, National Education Association, Detroit, Mich.

July 7-19, Department of Classroom Teachers, NEA, Muncie, Ind.

Oct. 4-9, Department of Rural Education, NEA, Detroit, Mich.

Nov. 9-11, National Association of Public School Adult Educators, Miami Beach, Fla.

New Educational Materials

The Changing Curriculum of the American High School. Kimball Wiles. Englewood Cliffs, N.J.: 1963. Prentice-Hall, Inc., Pp. xi + 331. $6.95.

"The word curriculum is an abstraction. It means different things to the child, the teacher, the parent, the college professor, the lay community member."

The author, a professor of education at the University of Florida, has prepared this book from the viewpoint that the curriculum consists of all the experiences pupils have under the supervision of school authorities. He sees the curriculum as "a dynamic program, not a fixed abstraction."

He discusses curriculum as a dynamic program that can and should be influenced by interested individuals, as it becomes what it is because of social setting, ideals and commitments of individuals, and the skills, understandings, and strategies of those concerned with curriculum improvement.

Examples of high-school programs are cited. A typical high-school curriculum is contrasted with the curriculum suggested by available research.

After discussing methods of working for improvement, and of the various roles played by teachers, administrators, and the public, the author presents his own concept of the future curriculum of the American high school.

Teacher Shortages and Salary Schedules. Joseph A. Kershaw and Roland N. McKean. New York: McGraw-Hill Book Co., Inc., 1962. Pp. xi + 203. $5.50, clothbound; $2.95 paperbound.

This book is based on a nationwide statistical survey of teacher shortages and is intended to provide an economic analysis of teacher supply and demand.

The development of teacher-salary schedules is traced. The conclusion is made that present schedules have become too readily accepted orthodoxy that prevents necessary change. It is suggested that present salary schedules ignore realities of supply and demand, making it difficult to alleviate shortages in specific teaching fields and to maintain quality instruction in a developing, changing economy.

The following are among the conclusions reached: shortages of good teachers in certain fields will likely become more serious; salaries significantly influence the supply of applicants from which school officials can choose; differences [illegible] $1,000—$2,000 per year have substantial force in attracting well-trained teachers; to remedy shortages in particular fields under conventional schedules would require tax rates higher than most communities will accept.

The authors propose breaking out of the rigid unified schedules with a salary schedule that varies within each speciality.

Educational Goals for America. Norman Woefel. Washington, D.C.,: Public Affairs Press, 1962. Pp. vi + 167. $3.75.

The author contends that past efforts in mass education in America have been "sadly ineffective, because they were carried on in isolation from the common concerns of daily life." He maintains that we have public-school systems galore but no "educational system." The school regimen, described as "verbal memoriter learning" is charged with wasting talent and ability on an enormous scale.

The content of the book focuses or educational practice in sustaining and fulfilling democratic aspirations. In reviewing significant periods in this nation's history, the author, who is professor in the Bureau of Educational Research and Service, The Ohio State University, Columbus, concludes that we have not collectively faced social, political, and economic reality since the First Constitutional Convention in 1776.

He asks that this nation face these realities, perhaps through a new Constitutional Convention to frame a new legal and governmental structure for America in the Atomic and Space Age. A first problem to be faced would be that of redesigning a national program of mass education.

The author attempts to identify reality today, lists our resources, and applies imaginative thinking to describe alternative actions for working harder at fulfilling the dreams of a democracy.

OTHER MATERIALS RECEIVED: ELEMENTARY

Teaching the Fundamentals of Reading and Spelling Phonetically. Laurel M. Dust. New York: Vantage Press, 1963. Pp. 62. $2.50.

Friends Old and New. Book Two, Part I. Helen M. Robinson, Marion Monroe, and A. Sterl Artley. Chicago: Scott, Foresman and Company, 1963. Pp. 240. $2.16. Part of the New Basic Reading Program.

The Great Canoe. Adelaide Leitch. **West to the Cariboo.** Lorrie McLaughlin. **Father Gabriel's Cloak.** Beulah G. Swayze. New York: St. Martin's Press, 1963. Pp. 115, 122, and 122. Titles in the Buckskin Book series, a new adventure series set in Canadian history background.

The Golden Goose and Other Plays. Fan Kissen. **Penny.** Ruth M. Stringer. Boston: Houghton Mifflin Company, 1963. Pp. 128 and 96. $2.60 and $2.28, respectively.

SECONDARY

What Everyone Should Know about Communism. Greenfield, Mass.: Channing L. Bete Co., Inc., 1963. Pp. 24. $.75. A scriptographic booklet.

Adventures in Biology. Curriculum Bulletin No. 3, 1961–62 Series, New York City. Pp. 289. Available from New York City Board of Education Publications Sales Office, 110 Livingston St., Brooklyn 1, N.Y. $1.50.

Modern Geometry: Structure and Method. Ray C. Jurgensen, Alfred J. Donnelly, and Mary P. Dolciani. Boston: Houghton Mifflin Company, 1963. Pp. xvi + 574. $4.90.

Science Is Explaining. Wilbur L. Beauchamp, John C. Mayfield, and Paul D. Hurd. Chicago: Scott, Foresman and Company, 1963. Pp. 384. $3.96. For seventh-grade science courses.

Hippocrates; Father of Medicine. Herbert S. Goldberg. New York: Franklin Watts, Inc., 1963. Pp. 107. $2.95. One of the Immortals of Science series, for grades 7 and up.

Point to the Stars. Joseph Maron Joseph and Sara Lee Lippincott. New York: McGraw-Hill Book Company, Inc., 1963. Pp. 96. $3.95. For beginning astronomers.

GENERAL

Atoms, Energy, and Radiation. Robert E. Fearon. Tulsa, Okla.: Beta Chemtronics, Inc., 1963. Pp. 37. Free. Discusses how atomic radiation can be taught and demonstrated in the classrooms.

How and Where to Find the Facts. William Sunners. New York: Arco Publishing Company, Inc., 1963. Pp. viii + 442. $7.50. A guide to sources for all types of information.

Troublemakers; Rebellious Youth in an Affluent Society. T. R. Fyvel. New York: Schocken Books, 1963. Pp. 347. $4.95.

The Emotionally Disturbed Child: A Bibliography. A New York City Board of Education publication. Pp. 196. Available from the Board's Publications Sales Office, 110 Livingston St., Brooklyn 1, N.Y. $1.50.

Read Faster—and Get More from Your Reading. Nila Banton Smith. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963. Pp. xiv + 393. $5.95.

State and Local Taxes for Public Education. Jesse Burkhead. Syracuse, N.Y.: Syracuse University Press, 1963. Pp. xiii + 110. $1.75. No. 7 in the Economics and Politics of Public Education series.

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